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NOTES ON SOME THERMAL, HYDRO-THERMAL, ELECTRIC AND HYDRO-ELECTRIC PROCEDURES, AND THE INDICATIONS FOR THEIR USE.

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THE empirical use of thermal and allied methods of treatment dates back to almost prehistoric times, but the rationale of their operation has been greatly elucidated by modern researches. In the Prussian Universities and Medical Schools considerable stress is now laid upon the teaching of this branch of therapeutics. Thus the addition was recently announced of a complete hydrotherapeutic and kinetic installation to the equipment of the Charité Hospital. By the systematic and graduated application of definite and appropriate stimuli (thermal, mechanical, electric) to the entire body-surface, or to particular parts of it, we can produce the following results: (1) The increased oxidation, and (2) the elimination of toxic products; (3) the stimulation of anabolic, or (4) of catabolic molecular

activities; (5) the restoration of impaired or dormant functions; and (6) the establishment of a heightened condition of general nervous and vascular tone, where these were previously defective. Far too much stress is laid upon the mere eliminatory effect of these methods of treatment. It is to their great value as a species of organic or molecular *exercises*, capable of gradually arousing the latent powers of the organism, that the writer desires to call special attention. Thus, in a case recently observed, the manifestations of a general rheumatic poisoning were first distinctly aggravated, but ultimately dispelled, by the persevering use of a simple graduated needle-bath. It is hoped that the following paper may be of service to those who, while desirous of testing the value of physical methods, are deterred by the inaccessibility of technical information.

I. Thermal.

(*a*) The Turkish bath, comprising three heated chambers, viz.:

i. A warm room, at a temperature of 115° F. to 130° F.
ii. A hot room, at a temperature of 130° F. to 150° F.
iii. A flue room, at a temperature of 160° F. to 200° F.

Methods of using the Turkish Bath.

(1) Full bath: Go straight into the flue room (iii.) and remain till slight oppression is felt; the hot room (ii.), next by the same rule. Remain thereafter in the warm room (i.) until called, the whole occupying 40 to 60 mins.
(2) Ordinary bath: The flue room first, for 6 mins.; the hot room next, for 15 mins.; and then the warm room, for 10 mins., more or less.
(3) Brief bath: The hot room (ii.) first, for 10 mins., and the warm room (i.) for 10 mins.
(4) Mild bath: The warm room (i.) for 20 mins.
(5) A warming merely: Five minutes spent in the warm room (i.) as a preliminary to some other bath.

On entering the bath the patient should wet the hair thoroughly, and then the attendant binds a triangularly-folded wet cloth turban-wise around the head. In cases of vaso-motor irritability or plethora, to obviate a rush of blood to the head, the feet may be kept in hot mustard and water. Syncope may be averted by applying cold wet cloths to the precordial region. Perspiration is encouraged by sipping cold water.

Methods of concluding the bath.

(1) By a general shampooing and soaping, followed by a spray or needle bath, and finally, in suitable cases, by a plunge bath.
(2) A hot soap-down without shampooing, followed by a needle or spray bath.
(3) Spray or needle bath only.
(4) In cases of cardiac or nervous debility, a mere tepid sponging may suffice.

(*b*) The Russian bath, consisting of a chamber kept at a temperature of 100° F., and further heated for use by steam to a temperature of 110° to 120° F. Generally speaking, the duration of the bath should be not less than 10 or more than 20 minutes. To conclude the process, precisely the same alternatives of shampooing, soaping, spray or needle bath, &c., are available as in the case of the Turkish bath.

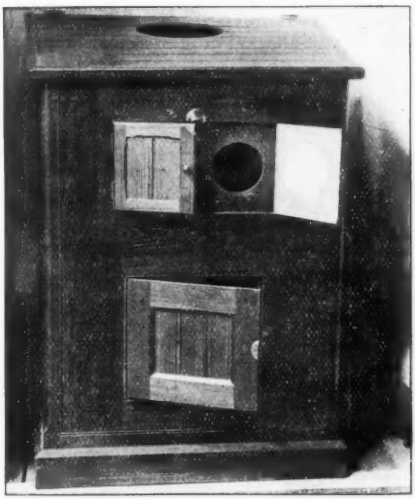

FIG. 1. VAPOUR BATH.
SHOWING APERTURES FOR THE TREATMENT OF EXTREMITIES.

(*c*) The vapour or steam-box bath, general and local (Fig. 1).

i. *General.* The patient sits in a box so constructed as to allow the head to protrude. The box is heated in advance to 80° to 90° F. The patient sits with his feet in hot water and with a wet cloth bound round his head. Steam is allowed to flow freely

into the box until slight oppression is felt and perspiration breaks out on the face, or until the temperature of the box is about 110° F. Thereafter it is partly or entirely turned off, but the temperature will be maintained for some time. The duration is 20 minutes, or less. Give cold water to drink as desired. Conclude with a spray or needle bath, or a simple sponge-down, as may be prescribed.

ii. *Local.* The hands, arms, feet, or legs may be inserted through apertures provided for the purpose into the interior of the vapour bath, and steamed for from 10 to 20 minutes. This is a very useful procedure in many cases of gout and rheumatoid arthritis.

(*d*) The radiant heat and light bath (Fig. 2). Dowsing's apparatus for the application of electrically-generated luminous heat to therapeutic purposes has been so widely discussed that a detailed description is unnecessary. The *general* bath consists of a set of four wedge-shaped copper reflectors, each containing

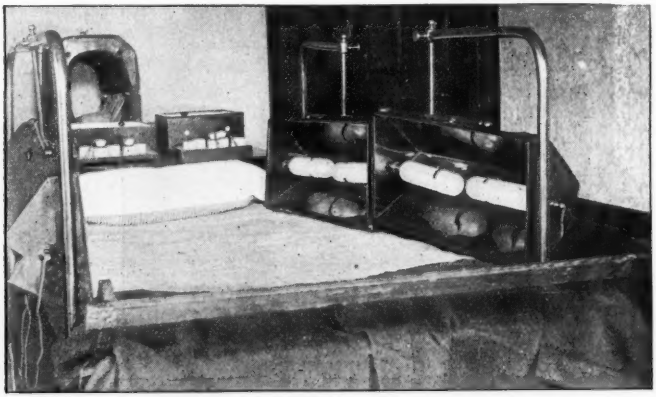

FIG. 2. RADIANT HEAT AND LIGHT BATH.
SHOWING COUCH FOR GENERAL BATH, AND AN APPLIANCE FOR LOCAL TREATMENT.

two long incandescent lamps of ground glass. These lamps are the source of the heat and light rays, and are so arranged that there are four of them on each side of the couch on which the patient lies. For a general bath the whole eight lamps are used simultaneously, but for local purposes any less number may be employed. There are also some special appliances for purely local use. The patient lies on the couch naked, except for a

loose envelopment of lint soaked in tungstate of soda solution, and the whole apparatus is then covered in in such a way as to form a chamber, from which the head alone is excluded. The degree of heat is regulated with nicety by means of a rheostat controlling the lamps, and the temperature usually attained in giving a general bath is 350° F. Perspiration is very free as a rule. At the end of 35 to 40 minutes the patient is dried with a warm Turkish towel, and then rests until cool enough to dress. A sponge-down may be given if necessary, but in most cases is not considered advisable. For the radiant heat treatment of small parts of the body a much higher temperature (375° to 420° F.) can often be used with advantage. Of course, the sensations of the patient must be regarded to some extent, but I have never known the slightest burning or even scorching of the skin to be produced. There is a general consensus of opinion among those who habitually prescribe this form of treatment that in all, except perhaps traumatic, cases it is best to employ the full bath, *plus* some special concentration of heat upon the affected parts. In rheumatic and gouty affections a purely local treatment often tends to produce a mere metastatic shifting of the inflammation to some other locality.

Physiological Effects.—The effects of heat upon the organism, so far as they are known, may be briefly stated as follows:—(1) The temperature of the body is raised, the increase being *relatively* greater under the influence of moist than of dry heat. (2) Dilatation of the arterioles and capillaries of the skin, and consequent contraction of the deeper vessels, especially those of the splanchnic area; depletion of the abdominal viscera. (3) More or less acceleration of the heart's action, due in part to the diminished peripheral resistance. The excitant effect of dry heat upon the heart is relatively less than that of moist heat. (4) Diaphoresis and a fall in the mean arterial blood-pressure. (5) Increased respiratory activity, and increased oxidation of waste products, with consequent modification of their toxicity. (6) Increased renal activity, with a relative and absolute increase of the nitrogenous and other constituents of the urine; in other words, increased elimination of urea and uric acid.[1]

Where *pain* is present, as in cases of arthritis, neuritis,

[1] *Physiological and Therapeutic Effects of Transpiration Baths*, by Dr. A. Frey. Tr. by W. H. Gilbert, 1891. *J. Balneol. & Climatol.*, 1899, iii. 157, 229.

myalgia, one of the first effects of heat is to remove or diminish it—at least, in the great majority of cases. There can be little doubt that the artificial pyrexia produced by thermal treatment is beneficial to the constitutional cachexia which forms the basis of local inflammatory manifestations. An experiment of Penzo's is worth quoting in this connection. He injected into rabbits cultures of staphylococcus aureus and streptococcus, and made arrangements whereby one ear of the rabbit was subjected to a low and the other to a high temperature. In the ear which was subjected to a low temperature inflammatory reaction was retarded, but its course was unfavourably affected. In the other ear the reaction was quickened, but was less severe; there was less tendency to spread and a comparative absence of troublesome sequelæ.[1]

Some special effects of *luminous* heat have been described by several observers, and call for brief mention here. It is said that heat rays, *plus* light and actinic rays (as in the Dowsing bath) are more active and penetrating than dark heat, and Dr. R. T. Bowles suggests[2] that this may be due to the fact that the light rays are degraded into heat rays when they impinge upon the surface of the body, or as they pass through the tissues. Luminous heat has a much greater action upon the *skin* than dark heat, and the heat and light bath is certainly likely to prove of special benefit in chronic cutaneous diseases. Luminous heat is undoubtedly the most powerful diaphoretic we possess. In the Dowsing bath perspiration streams from the surface of the body, yet there is a marked absence of prostration or fatigue. Scientifically, there is, however, no such thing as a *hot-air bath*. Air acts to heat-rays as a vacuum, and the *air* of a Turkish bath should be kept as cool as is compatible with the comfort of the bather. It is a common error to suppose that such baths are heated by blasts of hot air (convection). A good Turkish bath is a *radiant* heat bath, but the heat rays are not to any considerable extent mixed with actinic and luminous rays.

Indications. The direct stimulant action of dry, and especi-

[1] *Arch. Ital. de Biol.*, 1897–98, xxviii. 1.

[2] *J. Balneol. & Climatol.*, 1899, iii. 167.

ally of luminous, heat upon the body-surface, and the improved nutrition of the skin effected by a general determination of the blood to the cutaneous vessels and a general acceleration of its flow, indicates the radiant heat bath as an appropriate remedy for those forms of *skin disease* (*e.g.*, some cases of *psoriasis*, *dry eczema*, *lichen planus*, &c.) in which an atrophic or dystrophic, rather than an inflammatory, affection is to be combated. In more acute and irritable conditions the moist heat of the Russian bath (*b*), or the general vapour (steam-box) bath (*c*, 1), is preferable. When the extremities are affected general treatment may be augmented, or even replaced, by local steam baths (*c*, 2) or local applications of dry (radiant) heat. Krause reports the rapid cure of a psoriasis of the leg by such local treatment.[1]

The normal quantity of sweat is about half a litre per day, but may easily be increased four or six-fold. The extreme modifiability of this function indicates it as a proper field for therapeutic effort. By active diaphoresis considerable quantities of water are withdrawn from the blood circulating in the cutaneous vessels, and a temporary concentration of the blood is brought about. To restore the normal balance any excess of serous liquid which the tissues may contain will probably be in part re-absorbed into the circulation, for, as we know, the chemical composition of the blood is on the whole very uniform. Hence in the treatment of the serous effusions of *pleurisy*, *ascites*, *synovitis*, and *iritis*, the Turkish bath (*a*, 1, 2, or 3), or, better still, because of its greater diaphoretic power, the radiant heat bath (*d*), should, in the absence of decided contra-indications, find a place. Thermal treatment has even been suggested for early stages of ovarian cyst-formation.

The experiments of Arloing[2] and others prove that the *toxicity* of sweat is also very variable, and is increased by conditions (*e.g.* muscular effort) which raise the toxicity of the blood. Here then we have an indication for thermal diaphoresis in the treatment of *lithæmia*, "*suppressed gout*", *renal insufficiency*, *chronic Bright's disease*, and other forms of auto-

[1] *München. med. Wchnschr.*, 1898, xlv. 621.

[2] *Brit. M. J.*, 1897, ii. 678.

intoxication.[1] An advantage of the Turkish bath treatment of such conditions is that, while increasing the activity of the skin, it has no prejudicial effect upon the functions of the kidneys. The toxæmia of *epilepsy*[2] has been extensively treated by Cabitto[3] with sweating baths, with the result of a decided diminution in the frequency and severity of the fits.

The thermal treatment of *gout*, *rheumatism*, and *rheumatoid arthritis*, as well as of *gouty* and *rheumatic neuritis*, *myalgia*, &c., is so generally recognised that I will confine myself here to a few practical suggestions. For *acute gout*, for most cases of *sciatica* and *neuritis*, and for *rheumatoid arthritis*, the radiant heat bath is to be preferred as being (1) more powerful, yet (2) relatively less exhausting, than the other forms of thermal treatment. The Russian bath and the steam-box bath (general or local) have a very good effect in the treatment of the less severe manifestations of *gout*, but dry heat is as a rule preferable (*a*, 2 or 3) in *rheumatic* cases.

Cases complicated by *bronchitis* or *asthma* will generally do best with the Russian bath, because of the sedative and resorptive effect of the inhaled steam. Russian baths are also useful in cases of *chronic* or *acute nasal catarrh*, and, in one instance at least, *deafness* of several years' duration, due to Eustachian catarrh, was, to my knowledge, cured by a course of Russian baths.

Brief or mild Turkish baths (*a*, 3 or 4), followed by the spray bath alone, or by tepid sponging, are often extremely beneficial in the milder cases of *valvular disease* of the heart. The attendant should be warned by adding the words "*with care*" to the prescription, and any cardiac discomfort must be the signal for the termination of the bath. As a matter of fact, however, in ten years' experience, during which time I have treated many such cases, I have never seen any ill effects from their thermal treatment. The circulation is facilitated, almost

[1] Cf. Self-poisoning and its Treatment, by C. J. Whitby, M.D., *Bristol M.-Chir. J.*, 1896, xiv. 307.

[2] Cf. *Lancet*, 1899, i. 1241.

[3] *Riv. sper. di Freniat.*, 1897, xxiii. 36, 52; abstract in *Brit. M. J.*, 1898, Epitome, p. 11.

as much as by venesection, by the depletion of the congested viscera, and the appetite and general health are improved.

The common notion that Turkish baths necessarily lower the body weight is, of course, fallacious. Anabolic or katabolic effects may predominate according to the method employed. In cases of *neurasthenia*, *anorexia*, *anæmia*, and *convalescence*, I have often witnessed a gain in weight as the result of bi-weekly or tri-weekly *tonic* Turkish baths (*a*, 3 or 4), followed by a spray or needle bath only. In cases of *obesity* the bath should be longer (short of exhausting the patient however), and should be followed by a shampooing and, if possible, cold douching.

II. Hydro-Thermal.

Impact Baths:—

i. *The spray bath.* Water is forcibly delivered horizontally through a rose (2½ in. diameter). The temperature is hot or warm to commence with, and is gradually lowered till cold or nearly cold. The patient meanwhile turns himself about, rubs the chest, back, &c., and occasionally brings the head under the spray. Usual duration, one to two minutes. The bath may be varied in many ways; *e.g.*, by alternately raising and lowering the temperature, by localising on certain organs or parts of the body, by lengthening the duration, or, by means of a reversible nozzle replacing the rose, may conclude with a general or local *cold douche*.

ii. *The needle bath* consists of two curved horizontal pipes connected by a number of smaller vertical pipes. These vertical pipes are perforated with small apertures at intervals of a few inches, the result being that many forcible jets of water inpinge simultaneously upon practically the whole body surface. The method of using the bath is the same as in the case of the spray bath, but a more stimulating effect is produced.

iii. *The douche* may be used as a general or local bath, and, as regards temperature, hot, cold, graduated, or alternating. Cold douches should be followed by friction until the circulation of the part is restored. In prescribing a douche the duration, temperature, &c., should always be definitely stated.

iv. *The Aix douche* (Fig. 3). This procedure is a combination of a hot or warm douche with systematic massage. The patient, undressed, seated on a short-backed wooden chair, has a fixed spray of water at 98° F. (or prescribed temperature) playing on the back and shoulders. Meanwhile the attendant massages in turn the feet, legs, thighs, hips, arms, back, chest, and abdomen, at the same time directing a stream of water at 98° F. (or pre-

scribed temperature) from an open hose-pipe on the part just massaged. The joints are, in turn, flexed, extended, abducted, adducted, and rotated, and this is followed by (*a*) stroking with compression and (*b*) kneading of the joint and limb, and the next part is then taken in the same way. Average duration, 15 minutes, or as prescribed. Conclude with a brief general spray bath to cool down; rest for an hour after the bath.

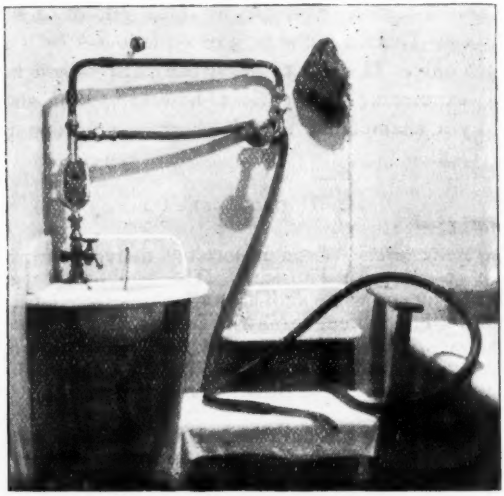

FIG. 3. THE AIX DOUCHE.

v. *The ascending douche and spray.* The patient sits over the pan of a properly-fitted w.c., and water of any desired temperature is delivered vertically upwards with more or less force as prescribed, through (1) a ¼-inch nozzle, (2) a small rose, in such a way as to impinge upon, or even, if necessary, in the case of the douche, to enter the fundament. Duration, half to two minutes.

Physiological Effects.—A general impact bath stimulates the nervous system and brain more or less powerfully in proportion to the force, lowness of or abruptness of change in temperature, and form of distribution employed. A feeling of exhilaration is produced, which lasts for some time. Drs. Edgecombe and Bain[1] found that a strong needle bath, graduated from about 99° to 60° F., caused a decided quickening of the pulse, a rise

[1] *Lancet*, 1899, i. 1552.

in the arterial and a slight fall in the venous blood-pressure. These effects are attributed to (1) peripheral vascular constriction, (2) increased cardiac output. The effects of combined massage and warm douching (as in the Aix douche) are precisely the reverse; viz., a fall in the arterial and a slight rise in the venous pressure, with slowing of the pulse. A series of these baths produces a *cumulative* effect. Winternitz[1] has observed a decided increase in the percentage of red blood-corpuscles in the blood as the result of the general application of cold to the body surface. His experiments were performed chiefly on anæmic subjects; and he considers that the result, though due merely to altered distribution, is practically as beneficial in improving the respiratory quality of the blood and the general nutrition as if it were due to augmented production. He has also noted an increased assimilation of oxygen and excretion of carbonic acid.

Indications.—The graduated spray and needle bath will prove beneficial in cases of *neurasthenia*, *chlorosis*, *anorexia*, and in the secondary anæmia and debility of *convalescence*. They should be taken at least three times a week, and the frequency, lowness of temperature, and duration of the baths should be gradually increased as recovery progresses. Persons of feeble circulation with a tendency to cyanosis should be directed to take from three to five minutes warming in the outermost chamber of the Turkish bath (*a*, 5) as a preparation for the impact bath prescribed. Buxbaum strongly recommends the general needle bath of rapidly alternating temperature (so-called "Scottish douche") as a treatment of various kinds of *neuralgia* and *sciatica*. Of eighty-three cases he was successful in 95 per cent.[2] The general cold douche is a useful adjunct in the treatment of *obesity*. Very hot local douches relieve the pain of *lumbago*, *muscular rheumatism*, and *subacute arthritis*. Cool or cold ones are prescribed as a tonic remedy in later stages of the treatment of inflammatory affections, and are of great service in combination with massage in the treatment of old *fractures* and injuries and in *chronic synovitis*. The Aix douche is indicated in all *toxæmic* or *lithæmic* conditions, especially, of course, when

[1] *Centralbl. f. klin. Med.*, 1893, xiv. 177. [2] *Deutsche med. Wchnschr.*, Dec. 27, 1894.

characterised by a *high tension pulse*, as in so-called "*suppressed gout*," and also relieves some cases of *chronic rheumatism*.

Ascending douches of low or graduated temperature promote peristalsis, and are therefore indicated in atonic *constipation* and in some cases of *piles*. More painful and *acute hæmorrhoidal* symptoms and *pruritus* are often greatly relieved by the ascending spray of a temperature as high as is bearable.

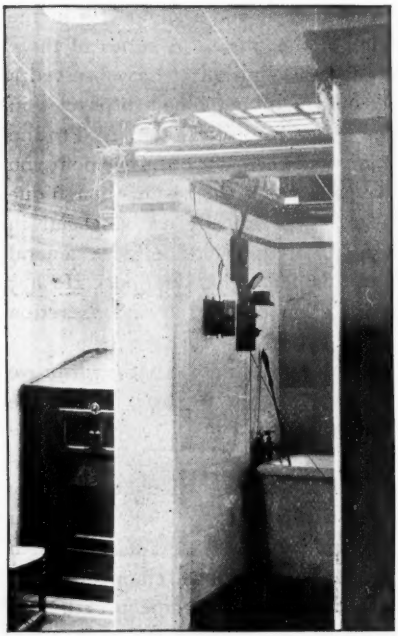

FIG. 4. CONTINUOUS CURRENT BATH.
SHOWING BATTERY, CELL-COLLECTOR, SWITCH-BOARD, GALVANOMETER, AND PEDAL ELECTRODE. ALSO SHOWS TRANSFORMER FOR CURRENT FROM THE MAINS.

The above are representative examples of a few of the more common hydro-thermal methods, but space will not permit of a description of others of equal utility. A second section might be devoted to packs, fomentations, &c., and a third to the various *immersion* baths (hot, cold, indifferent, saline, and medicated), including the well-known *Nauheim* treatment of heart-disease; but their discussion is necessarily omitted at present.

III. Electric and Hydro-Electric.

The forms of electricity commonly employed are (1) *Galvanic* and (2) *alternating* or *induced*, the source of supply being, in the first case, a battery of twenty-four large Leclanché cells, regulated by a cell collector, milliampère meter, and graphite rheostat (Fig. 4),

and employed both for local and general dry galvanisation and for continuous current baths; and, in the second case, (*a*) an ordinary dry-cell chloride of silver Faradic battery for dry electricity and Farado-massage, and (*b*) for baths, the current from the public electric-lighting circuit. The method of utilising dynamo currents with safety and convenience for medical purposes has been well described by Dr. W. S. Hedley in his work *Current from the Main*, and need not be repeated here. The Bristol authorities supply their current at a pressure of 105 volts, and with alternations at the rate of 93 complete periods per second. To avail ourselves of this, an ordinary incandescent lamp is replaced by a plug, or adapter, and the current so obtained is led through a transformer (Fig. 4), by means of which the voltage is reduced to suitable dimensions and regulated at will. The result is a current resembling somewhat the ordinary Faradic current, but of a less harshly pulsatile, more wavy and uniform character, being produced by an electromotive force of which the positive and negative maxima are approximately equal, and attained by smooth, though rapid, transitions. Such a current is described by Hedley as being "more or less *sinusoidal*," and is represented by a "curve of sines." It is pleasant to the patient, and is well adapted for use in the class of cases for which Faradic treatment is prescribed, having probably for therapeutic purposes (especially for use in connection with baths) some advantages over the latter form of electricity.

Forms of Electrical Treatment:

(*a*) Dry electricity and electro-massage.

i. *Galvanisation.* Weak currents, ascending or descending as prescribed, and of approximately stated strength,[1] are applied for a certain period to (1) the whole or (2) affected parts of the body.

ii. *Faradisation*, general or local, to the part specified, and during the prescribed time.

ii. *Farado-massage.* One electrode is in contact with the patient's body (usually the dorsal spine), the other is formed by a metal clasp worn on the right wrist of the operator. For prescribed period, general or local.

[1] Say 3 to 20 milliampères registered while the current is actually passing through the part under treatment.

(*b*) Electric baths.

i. *Galvanic.* General (Fig. 4). Temperature of water, 98° F. The patient reclines at full length on his back, the body just immersed. The direction of the current is usually from the feet towards the head. A slight pricking sensation may or may not be felt at the ankles and knees, or a sensation of warmth near the negative electrode. The current is usually uninterrupted, and of a strength not exceeding 100 milliampères at the first bath, but gradually raised to 200 or 250 by, say, the third or fourth bath. Duration, 15 to 20 minutes.

ii. *Alternating (sinusoidal) electric bath.* Administer as above, but with the alternating current from the main in circuit, modified by a suitable transformer. The strength should be gradually increased, short of the point at which contraction of the muscles is induced, and then gradually diminished during the last two minutes of the bath. Duration, 20 minutes.

iii. *Combined Galvanic and sinusoidal bath.* With both currents simultaneously passed along the wires; the galvanic current not, as a rule, to exceed 100 milliampères; the alternating current graduated as in ii. Duration, 20 minutes.

iv. *Electric footbath (sinusoidal).* The feet, immersed in hot water, rest on a large flat electrode at the bottom of an insulated footbath. The other electrode, consisting of a large damp sponge, is held in both hands. After two minutes the strength of the current is, by means of the transformer, gradually increased, and then brought back to its original degree. Duration, 10 minutes.

Physiological Effects and Indications.—The effects of the bipolar electric bath are thus summed up by Erb:[1] Respiration diminished, metabolism and renal secretion decidedly increased. Appetite and digestion are improved; the genital functions are stimulated; circulation and nutrition are benefited; sleep notably restored, and new vigour imparted to the mental and physical faculties. While recognising the accuracy of this general statement, Dr. Hedley points out that a good deal has been learned about the electric bath since this was written. Those interested in the subject may be referred to his excellent work, *Hydro-Electric Methods.*

[1] *Electrotherapeutics*, 1887, p. 280.

It is superfluous to discuss in detail the indications for ordinary Faradic and Galvanic treatment of chronic diseases; *e.g.*, *motor*, *sensory*, and *trophic affections* of the neuro-muscular system, &c. Dr. D. Graham reports excellent results from the treatment of *acute gout* by massage in combination with brief Galvanisation of the inflamed joints. A current of 5 to 10 milliampères was employed for a few minutes, the cathode being applied to the affected region. There was evident diminution of the congestion, induration, and œdema. Farado-massage is often serviceable in *neurasthenia*, *hysteria*, and general *malnutrition*. The Galvanic bath has a wide field of therapeutic utility. Hedley reports excellent results from its employment in cases of *insomnia*, *muscular rheumatism*, and *neurasthenia*, enhanced in the case of the last-named by Galvanisation of the head. The *gouty state* is benefited by a course of such baths, given in the intervals between attacks, and in selected cases of *locomotor ataxy* symptoms are alleviated by its use. I can support, from my own observations, the claims of Hedley, Armstrong, Nevison, and others for the continuous current bath that it is, perhaps, the best single remedy known for cases of *rheumatoid arthritis*, especially those of the neurotic or paretic type. The bath seems to supply the needful combination of central and peripheral treatment. Apart from the reduction of local manifestations, the general health is stimulated, and a feeling of warmth and comfort lasting for the remainder of the day is a noticeable effect of individual baths. Chauvet,[1] of Royat, obtained satisfactory results by the hydro-galvanic treatment in ten out of fourteen cases of rheumatoid arthritis, though in two of these the baths had to be discontinued owing to the supervention of nervous excitability. There was a remarkable and rapid improvement in the mobility of the joints. Still better results might be expected by the alternate employment of the continuous current bath and the radiant heat treatment, described above.

Somewhat different are the indications for the use of the alternating (sinusoidal) electric bath. By this form of vibratory treatment the irritability of hypersensitive nerves may be

[1] *Arch. d'Électric. méd.*, 1898, vi. 151.

painlessly diminished. Hence, in part, their proved efficacy in many forms of *neuritis* and neuralgic affections. Hedley reports the absolute relief of a case of *trigeminal neuralgia*. Of six cases of simple *sciatica* treated at St. Bartholomew's with the sinusoidal bath, Dr. Percy Lewis cured three and relieved two others. Gautier and Larat report the successful treatment of *chlorosis*, *spinal neurasthenia*, *struma*, *rachitis*, *muscular atrophies*, *torticollis*, and *lumbago*, and the permanent cure of some cases of *obesity*. Cutaneous neuroses (*e.g.*, *urticaria*) are also sometimes amenable to this method, and the same authors report the cure by this means of a case of *eczema* of thirty years' standing.[1]

The electric footbath is a useful adjunct in the treatment of many forms of nervous *debility*. Given in the latter part of the day, it tends to promote sleep in cases of *insomnia*. Dr. Lewis, while employing it at the Hospital for cases of *infantile paralysis*, made the useful discovery that a short course of electric foot-baths is an effectual remedy for *chilblains*.

The combined Galvanic and sinusoidal general electric bath may be tried in cases where the indications for Galvanic and alternating currents clearly coincide (as may often be the case in rheumatoid arthritis, rheumatism complicated by neuralgias, &c.), or where, while electrical treatment is obviously called for, both forms employed singly fail to produce the expected result.

RHEUMATIC DISEASE OF THE CARDIAC MUSCLE.

BY

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ALL text-books on medicine speak of rheumatism as one of the causes of myocarditis, but the simple statement usually stands alone without comment. Clinically, the possibility of lesions of

[1] *Hydro-Electric Methods*, by W. S. Hedley, 2nd Ed., 1896.

the cardiac muscle following rheumatism is rarely thought of, and this is not to be wondered at, since, apart from associated valvular disease or adhesion of the pericardium, their presence is rare. To the pathologist, fibrosis of the heart muscle complicating old rheumatic valvular disease is possibly of more interest than to the clinician; yet if it were possible to diagnose its presence the reverse would be the case, since the condition of the myocardium is of great importance when the question of prognosis is being considered. Small fibroid patches are frequently seen scattered through the heart muscle in fatal cases of mitral stenosis, and although I have not seen sufficient cases to justify any dogmatic statement upon the point, it seems to me very probable that a careful study of the heart muscle in cases of mitral stenosis would explain the strange variability in the length of life they present. Sometimes extreme stenosis may be met with in the *post-mortem* room at the age of sixty years, while cases of comparatively slight constriction will end fatally before the age of thirty. In both instances the valvular disease will probably have dated from an attack of acute rheumatism occurring before the age of twenty.

As already mentioned, some fibrosis of the cardiac muscle is not infrequently seen in the *post-mortem* room in cases of rheumatic valvular disease, but it has not been my experience to meet with an instance in which the interstitial changes have been better marked than in the case from which the accompanying illustration was taken.

A male patient, aged eighteen years, who had been attending the out-patient department under Dr. Edgeworth for aortic valvular disease was brought to the Bristol Royal Infirmary, having died suddenly while at work. At the necropsy the heart was found enlarged, weighing 21 oz. There was old thickening of the segments of the aortic valve, but the interest of the case centred in the condition of the heart muscle. Everywhere the inner surface of the left ventricle was thickly dotted with greyish-white spots of irregular shape, few of which were more than one-fifth of an inch across. Section of the heart wall showed these fibroid areas to extend through to the pericardial surface and to be rather more numerous in the neighbourhood of the

apex than elsewhere. There was no evidence of there having been a previous attack of pericarditis, and the coronary arteries were healthy. Although I have been unable to ascertain whether the patient had suffered from acute rheumatism, the existence of an attack of that disease at some former period of his life may with safety be inferred. Old disease of the aortic valve found at the age of eighteen years can scarcely have any other cause. Possibly it may be doubted whether the fibrosis of the heart muscle should be attributed also to the rheumatic attack, and a syphilitic origin be suggested. Syphilitic disease of the heart, however, occurs late in the disease, and although multiple gummata have been described, I am not aware that any case of diffuse fibrosis of the heart has with good reason been assigned to syphilis.[1]

Curiously enough, there has recently been another case in the *post-mortem* room of the Bristol Royal Infirmary where fibroid disease of the cardiac muscle was associated with disease of the aortic valve at a much earlier period of life. In a child aged 4½ months, admitted under the care of Dr. Watson Williams for broncho-pneumonia, the heart was found after death to present thickening of the segments of the aortic valve, which were adherent, producing stenosis. In addition to this disease of the aortic valve, one of the musculi papillares was half converted into fibrous tissue, and microscopic sections of the heart muscle showed extensive recent increase of the interstitial tissue. The pericardium in this case, as in the former, was quite healthy. Here, again, there is no other cause to which the disease of the aortic valve can be assigned but that of rheumatism, and it is reasonable to consider that the disease of the cardiac muscle owed its existence to the same cause.

It has already been more than once mentioned that fibroid patches of small size are not uncommonly seen in the cardiac

[1] Recently we have had in the *post-mortem* room of the Bristol Royal Infirmary a case in which diffuse fibrosis of the cardiac muscle was associated with unmistakable evidence of syphilis in other organs. There was, however, aortitis immediately above the aortic valve, which had reduced the orifices of the coronary arteries to the size of pinholes, and the fibroid changes were no doubt in a great measure dependent upon interference with the blood-supply of the cardiac muscle.

Fibrous Myocarditis, probably secondary to Rheumatism.

muscle in fatal cases of mitral stenosis. Although we cannot ignore the view which attributes the morbid appearances to a disordered circulation of the heart wall, it is also reasonable to consider that the fibrous tissue indicates the former presence of myocarditis set up by an attack of rheumatism. In support of such a view is the fact that occasionally acute myocarditis may supervene in a case of old valvular disease. For example, a boy twelve years of age was admitted into the Bristol General Hospital, under the care of Dr. Harrison, for mitral stenosis. After being in the hospital for a week or two, he one day complained of a pain over the heart. Pericarditis was thought of, but on examination no rub could be detected. The cardiac action became rapid and feeble, and the following day the radial pulse could not be felt. The boy became drowsy, but continued restless, and frequent vomiting occurred. Four days after the first complaint of cardiac pain he died. In the absence of Dr. Michell Clarke, I made the *post-mortem* examination. The appearance of the heart was peculiar, and was so striking that it was at first commented upon by a member of the staff who was standing some distance away. The pericardium was perfectly healthy, but the ventricles were thickly dotted with small yellowish-white spots and streaks, the long axes of which ran in the direction of the muscle fibres. Not many spots were seen on the endocardial surface of the heart, but they thickly studded the cardiac muscle for some distance beneath the pericardium. The flaps of the mitral valve and chordæ tendineæ were thickened and the mitral orifice was stenosed. Microscopical examination of the heart muscle showed that the diseased condition was mainly due to degeneration of the muscle fibres, but some inflammation of the interstitial tissue was present. In this case acute disease of the myocardium was superadded to old disease of the mitral valve, and the myocarditis may with reason be attributed to a fresh attack of rheumatism affecting the heart. At least, precisely the same appearance may be seen in the hearts of children dying of rheumatic pericarditis, especially in cases that are not rapidly fatal. For example, in a boy aged seven years, who died in the Infirmary this year four months after the onset of acute rheumatism, which was compli-

cated by pericarditis, the walls of the ventricles were everywhere studded with yellowish-white opaque streaks and small opaque dots.

It does not, however, require this visual evidence of disease of the heart muscle in cases of pericarditis to show us that there is poisoning of the cardiac walls. The rapid fatality of many cases is the best evidence of the poisoning. It cannot be considered possible that mere inflammation of the serous covering of the heart can arrest its action. But even if we consider the fatal event to be the result of the local inflammation when the whole of the pericardium is affected, cases occur in which the pericarditis is so limited that such an explanation cannot be held to be satisfactory. I have seen pericarditis rapidly fatal with great dyspnœa, where after death the inflammation of the pericardium was found to be limited to the surface of the right auricle. In rarer cases, where death occurs from cardiac failure shortly after an attack of rheumatism, without pericarditis or serious valvular lesion being present, we have the direct action of toxins upon the cardiac muscle still more strongly suggested. For example, a boy eight years of age was admitted into the Royal Hospital for Children and Women, Waterloo Bridge Road, who for two years had suffered from symptoms pointing to disease of the heart, which symptoms had become much aggravated a few weeks before admission, at the same time that pain and swelling of the knees had been present. On admission there was great dyspnœa and a rapidly-beating heart, the pulse being 140 to the minute. The dyspnœa became worse and the pulse more rapid, and at the end of ten days the boy died. After death not the least trace of pericarditis could be found. A previous attack of rheumatism was indicated by thickening of the aortic segments and of the cusps of the mitral valve. The aortic valve, however, was competent, and neither the thickening of this valve nor of the mitral could in any way account for death. There was evidence that the recent attack of rheumatism had affected the heart in the presence of very small recent vegetations on the segments of the aortic valve, and on microscopic examination the heart muscle showed remarkable injection of the blood-vessels, with slight inflammation of the interstitial tissue.

The only reasonable explanation for death seemed to be that the attack of rheumatism had caused cardiac failure without giving rise to pericarditis. This failure may with reason be looked upon as evidence of acute rheumatic poisoning of the heart muscle.

Instances where this poisoning is of milder character are probably not uncommon. In May, 1896, I read a paper before the Bristol Medico-Chirurgical Society, entitled "Is Mitral Regurgitation from Valvular Disease Common or Serious?" in which it was suggested that too great importance had been attached to lesions of the mitral valve in rheumatism, and that the possible effect of rheumatic toxins in weakening the cardiac muscle had been overlooked. The paper was published in the *Lancet*,[1] and elicited a letter from Dr. Lees,[2] in which he stated that he had noticed dilatation of the heart to occur frequently in cases of acute rheumatism. Dr. Lees,[2] in conjunction with Dr. Poynton, has since published his observations. From the point of view of prognosis, the question is an important one. If dilatation of the heart occurs commonly in acute rheumatism, then the mitral regurgitant murmur developing during the course of the disease will frequently not indicate a lesion of mitral valve, but be secondary to the cardiac dilatation.

Clinical experience seems to indicate that rheumatic poisoning of the heart may manifest itself in other ways. Dilatation and signs of valvular disease may be absent, yet there may be indications of weakening of the heart. After an attack of rheumatism, for example, a child may be noticed to have lost its activity, and will probably occasionally complain of pain over the cardiac area. Since the case is fresh in my mind, I may refer to an instance where such weakening followed chorea, which is so closely allied to rheumatism, and in children plays a part little inferior in the production of heart disease. A short time ago a boy aged nine years was brought to the out-patient department of the Bristol Children's Hospital by his mother, who said that he had never been well since an attack of chorea which occurred two years before. She described

[1] *Lancet*, 1896, ii. 170. [2] *Ibid.*, 273.

[2] *Brit. M. J.*, 1898, ii. 1129; *Med.-Chir. Tr.*, 1898, lxxxi. 401, 419.

him as having been "so bright" before, but now he was "so dilatory." On examination, the boy's heart appeared perfectly normal, but he complained of occasional pain below and outside the cardiac area. The pain occurred, he said, when he ran "a bit fast," after which he had to walk "a bit slow." Similar weakness following rheumatism is illustrated by such a case as the following: A girl aged eight years was brought to the Bristol Hospital for Sick Children on account of attacks of faintness. She had been a robust child until attacked by rheumatic fever four years previously, but had never been well since that illness. She was obliged to sit down when at play, and would turn pale when standing in her class at school. The symptoms obviously pointed to cardiac weakness, yet nothing abnormal could be detected on examination of the heart.

Occasionally some degree of tachycardia may apparently be due to rheumatism. For example, a girl aged four years was brought to the Bristol Children's Hospital in August, 1896, by her mother, who stated that the child often turned pale, complained of pain over the region of the heart, and that on putting her hand to the chest the mother could feel the heart beating forcibly and at a great rate. Physical examination of the heart revealed nothing noteworthy. It was, however, beating rapidly —148 to the minute. There was a history of pain and swelling in the joints, and, curiously enough, after the first visit to the hospital the child had to be kept in bed a week owing to pain and swelling in the right knee. This child has been seen again recently, and although the heart on physical examination still presents nothing noteworthy, the attacks of pallor, with rapidity of the pulse, are said to continue. In another case, in a boy aged eight years, the heart was said to beat at times "as fast as it could beat." The pulse was 132 to the minute in the out-patient room. Six months previously he had suffered from rheumatism, but the rapid beating of the heart had been noticed before the attack. The history of one attack of rheumatism, however, gives reason for suspicion that another had occurred earlier.

In young adults mild anginal attacks may date their origin from recovery from acute rheumatism, and in the absence of the

evidence of any physical disease of the heart the attacks are generally diagnosed as hysterical. A neurotic disposition may undoubtedly aggravate the symptoms produced by cardiac distress, but because there is evidence of neurosis it does not follow that the whole disease is functional. Just as true epilepsy may be masked by hysterical fits, so I have little doubt that some cardiac weakness may lie unsuspected beneath attacks of hysterical angina pectoris. A few months ago I saw a young lady who suffered from mild anginal attacks following acute rheumatism. They had been diagnosed as hysterical, and she received little sympathy from her friends in consequence. Yet I could not doubt from the general symptoms that in this case there had been definite weakening of the heart.

The subject of the milder effects of rheumatism upon the heart is interesting and important. In a child it is easy to mistake physical weakness for laziness, and in a young female adult the symptoms produced by the same weakness may be thought evidence of hysteria. In either case injudicious advice may result in cruelty, if not in actual harm, to the sufferer.

VASCULAR CARUNCLE OF THE URETHRA.

BY

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[Read before the Bristol Medico-Chirurgical Society, January 10th, 1900.]

HAVING met with a good number of cases of vascular caruncle of the female urethra, I have thought it well to bring the subject before you in a brief yet practical manner, and I introduce it the more readily as I find that it is still the plan in some books to advise the use of caustics and cautery; and even in those books which advise excision we find that the cautery is recommended to be used after, and a good deal of stress is laid on the danger of bleeding. This I regard as unimportant in the

operation I advise and have practised for years both in hospital and private cases. Again, we are told that there is a great liability to recurrence: this I have not found to be the case when complete excision has been practised.

The usual situation of the urethral caruncle is at the orifice of the meatus, and it is generally of small size. I have, however, removed one quite one inch in length, and sessile on the upper urethral wall. It must be borne in mind that some growths are absolutely inside the urethra, and can only be seen when that passage has been dilated; so if, with the usual symptoms of the growth present, nothing can be seen outside, it is well to explore the urethra itself, and most likely about half an inch inside the canal the growth will be detected. The cases I have seen have presented various symptoms, but for all practical purposes they may be divided under three heads: 1. The only symptom complained of was a bearing-down pain and backache, a symptom which is purely pelvic and not likely to draw attention to the urethra, and yet in this case the real cause was a medium-sized growth at the meatus. Removal of the growth removed all the symptoms. There was only a little pain on touching the growth. 2. The only symptom complained of was a constant desire to pass water, and the act of urination was painless. Here complete removal of a small caruncle just inside the urethra cured the patient; the growth was very slightly sensitive. 3. Many cases come under this heading, presenting the usual symptoms of great pain in the act of micturition, also pain in coitus and in standing or walking. The intensity of the symptoms varied in several cases, and the most severe cases were not always those where the growth was largest.

I have operated on cases where these symptoms had existed in a marked degree for many years; one case in the Hospital had a history for eleven years. Many cases that I have operated on had been treated by others with caustics, the actual cautery, and partial excision—in fact, nothing more than snipping off the growth. This is of no use.

The operation I advise is to completely remove the growth. If the whole of the growth can be seen readily by simply

stretching the urethral orifice with a pair of sinus forceps, well and good; but if not, then cut the lower part of the meatus and wall of the urethra with scissors, so that you can see the whole of the growth. This cut surface can easily be sewn together with catgut after the growth has been removed. To remove the growth, all you have to do is to take one or two pairs of the old-fashioned pointed artery forceps and catch hold of the urethral mucous membrane beyond the growth. Cut out this portion of the mucous membrane with the growth attached, then bring the edges of the wound together with fine catgut, and you will get perfect union and complete relief of all symptoms, and almost the very first act of micturition will be devoid of pain.

The results of this operation have been in my hands, and in the hands of several medical friends, almost uniformly successful, and where this result has not been obtained it has been due to a bit of the growth being overlooked, and a second more complete operation has cured the patient.

NON-BACILLARY CROUP.

BY

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AN acute membranous affection of the fauces extending to the larynx and trachea, excited by agencies other than the Klebs-Löffler bacillus, has been variously described as "non-infective croupous angina," "pseudo-diphtheria," and "non-bacillary croup." The use of the word "diphtheria" in this condition, although etymologically correct, is to be deprecated. It should be applied only to those cases in which the diphtheria bacillus is present, other conditions being grouped under the head of non-bacillary croup.

Various agencies may excite a membranous condition of the fauces. Thus it may be caused by burns or scalds, by chemical irritants, by the use of the cautery, or by the invasion of the tissues by micro-organisms. In the cases detailed in the present paper, the first three of the above-mentioned causes could be eliminated, and as repeated examinations failed to reveal the presence of the Klebs-Löffler bacillus, they may be classed as true cases of non-bacillary croup of coccal origin. In undoubted cases of diphtheritic croup it frequently happens that bacteriological examination may give negative results as regards the Klebs-Löffler bacillus, owing to the swab being imperfectly inoculated, to the medium being unsuitable, or to the throat having been just previously irrigated with some strong antiseptic solution. For this reason I have only brought forward cases in which the examination of the membrane was made on several occasions, the cultures made on various media, and in some cases examined by more than one observer.

McBride and some other authors do not apparently recognise the condition of non-bacillary croup. McBride says: "It is extremely probable that most cases of fatal croup are in reality diphtheritic";[1] and again, "Most physicians will probably consider all cases of acute sore throat in which membranous exudation appears on the soft palate as diphtheritic."[2] Others, amongst whom I may mention Schech, Semon, Watson Williams, and Lennox Browne, recognise the condition; but I am not aware that a series of cases, in which careful bacteriological examination has been made, has yet been recorded, and for this reason I have considered the following cases[3] worthy of publication:—

1.—G. H., male, aged 1 year and 10 months, was admitted to the Children's Hospital, March 9th, 1898, with marked laryngeal obstruction, due to membranous exudation. Tracheotomy was performed and antitoxin injected. Repeated examinations of the exudate, by myself, revealed the presence of diplococci, streptococci, and staphylococcus aureus only. The same organisms were found by Dr. D. S. Davies (M.O.H.) in cultures made on March 11th and 18th and April 6th. The child was discharged cured on April 23rd.

[1] *Diseases of the Throat, Nose, and Ear*, 1892, p. 108. [2] *Ibid.*, p. 122.

[3] I have to thank Drs. Shaw, Prowse, Waldo, Elliott, and Rogers, for permission to publish notes of their cases.

2.—W. A. C., aged 3 years and 9 months, was admitted to the Children's Hospital on March 5th, 1899. There was nasal discharge, much membrane in the fauces, tonsils, uvula, and laryngeal obstruction necessitating immediate tracheotomy. The glands at the angle of the jaw were much swollen. Temperature 103° F. Antitoxin was injected. Direct examination of the exudate on stained films showed diplococci, and bacilli not of the Klebs-Löffler type. Cultures on Kanthack's medium showed streptococci and staphylococcus albus. Cultures by Dr. Davies on the same medium and on agar, streptococci only. The tracheotomy tube was removed on the fifth day, and the child discharged cured on March 31st.

3.—J. T., aged 10 years. Admitted to Children's Hospital March 10th, 1899. Nasal discharge, membrane on both tonsils, laryngeal obstruction, enlarged glands at angle of jaw. Several pieces of membrane were coughed up, and tracheotomy was necessary on March 11th. On the 12th, there was return of liquids through the nose. Some membrane was coughed up through the tube, which was kept in until March 15th. Recovery was uninterrupted. At no time was albumin present in the urine.

Direct microscopical examination of films prepared from the membrane on the first day showed strepto- and diplo-cocci, and long bacilli not of the Klebs-Löffler type, and cultures on agar showed the same organisms with the addition of staphylococci.

Dr. Davies, from cultures on Kanthack's medium, found staphylococci, and bacilli (non-diphtheritic).

4.—N. C., aged 2 years, was admitted to the Bristol Royal Infirmary on March 8th, 1898. On the previous day there had been convulsions and hoarseness, and on admission there was nasal discharge, membrane on tongue, tonsils, and pharynx, and signs of laryngeal obstruction. The glands at the angle of the jaw were enlarged. Broncho-pneumonia. Temperature 102.8° F. On March 9th tracheotomy was performed. Death occurred on March 10th. At the *post-mortem* examination there was found membrane throughout the whole respiratory track as far down as the bronchi, and patches of broncho-pneumonia. Cultures taken from the throat during life, both by Dr. Davies and myself, failed to show any diphtheria bacilli, the organisms present being staphylococci and various bacilli. Cultures made from a portion of membrane detached after death showed staphylococcus albus and citreus, whilst from the consolidated lung strepto- and staphylo-cocci were obtained.

5.—A. N., female, aged 4, was admitted to the Royal Infirmary on September 4th, 1898. This was the fifth day of the illness, and the laryngeal obstruction was such as to necessitate immediate tracheotomy. The pharynx, tonsils, and base of the tongue were covered with grey sloughy membrane, and several pieces of membrane were coughed up through the tracheotomy tube. Antitoxin was injected. Death ensued three hours after admission. At the *post-mortem* examination broncho-pneumonia was found, and extension of the membrane as far as the vocal cords. Cultures from and direct examination of the membrane after death showed only strepto- and staphylo-cocci.

6.—A. G., female, aged 4 years. Admitted to the Children's Hospital on August 10th, 1898. On this, the tenth day of the illness, there was laryngeal obstruction, and membranous exudation covered the fauces and soft palate. Temperature 99°. Antitoxin was administered, and on August 11th tracheotomy was performed. On August 13th a large

slough came away from the throat; there was regurgitation of food through the nose and suppression of urine, and death ensued.

Cultures taken from the throat during life failed to reveal the presence of diphtheria bacilli, the only organisms present being diplo- and strepto-cocci.

7.—M. F. B., female, aged 4 years, was admitted to the Children's Hospital on April 21st, 1898, suffering from membranous pharyngitis and laryngitis with broncho-pneumonia. There was laryngeal stridor and much in-drawing of the lower intercostal spaces. Antitoxin was administered. Temperature 102°. Tracheotomy performed April 23rd. Child died April 25th. Repeated bacteriological examinations of the throat exudation showed staphylococcus albus and streptococci only.

8.—This was a case which cannot strictly be called non-bacillary. The laryngeal obstruction was such as to necessitate immediate intubation, followed by tracheotomy, and an enormous cast of trachea and bronchi to the fourth and fifth divisions was coughed up. The patient was a child aged 4, and died on the second day. Swabbings from the throat and rubbings from the membrane showed fusiform bacilli and spirals in great numbers. Cultures made both before and after death showed strepto- and staphylo-cocci only. This was undoubtedly a case of angina, due to the fusiform bacillus (Vincent).

Whilst there are many cases in which it is impossible, without a bacteriological examination, to distinguish between non-bacillary croup and true diphtheria, yet there are many clinical points on which the two diseases differ widely one from another. The onset of non-bacillary croup is much more sudden than that of diphtheria, and the temperature rises more quickly and to a higher point.

The membrane has not the dead white appearance of diphtheritic membrane. It is yellowish in colour, softer, less firmly matted together, and more easily detached from the underlying tissues. Placed in water the membrane swells up, losing its characteristic shape, probably owing to the large amount of mucus it contains. The surface from which the membrane has been detached is seldom bleeding or ulcerated, and may preserve its epithelium quite intact. Examined microscopically the membrane is found to consist of pus cells, leucocytes, and fibrin.

It is extremely difficult to get specimens of urine from young children such as are chiefly attacked by this disease, but it is noteworthy that in Case 3 the urine was free from albumin throughout the illness.

The paresis which leads to regurgitation of liquids through the nose is chiefly seen in those cases in which the soft palate

has been heavily coated. It is seldom severe or of long duration. The voice is not affected, nor have I seen any other symptoms of paralysis. In Case 6 a complete loss of knee-jerk was noted.

Although it is probably true, as stated in some text-books, that most cases of fatal laryngitis are in reality diphtheritic, yet the above-mentioned cases show that non-bacillary croup is a not uncommon disease and has a very high mortality, as evidenced by the fact that of seven cases four died. Death is generally consequent upon the general septic infection or upon broncho-pneumonia.

The involvement of the larynx and trachea in this disorder must be far more common in young children than in adults. During fifteen months' residence at the London Fever Hospital I examined a large number of cases of non-diphtheritic membranous tonsillitis and pharyngitis occurring in adults in the initial stage of scarlet fever, but in no one of these was the larynx involved to such an extent as to necessitate tracheotomy.

Etiology.—If film preparations be made direct from the throat-swabbing, it will be found that a very large variety of organisms are present. In cultures upon agar, blood-serum, or Kanthack's medium, the forms which most generally develop are streptococci, staphylococci, and a large stout bacillus with rounded ends; and if the disease is not actually caused by one or other of these, the association is a very close one. It is not possible to distinguish between the inflammations caused by different organisms.

Treatment.—The exudation can be easily detached by means of a swab, and the local condition much improved by syringing the fauces with a solution of formalin (1 in 250) and by irrigating the nose with warm boracic acid solution. The dyspnœa is relieved by intubation or tracheotomy, but the tubes require constant and careful cleaning on account of the excessive secretion of mucus. In marked septicæmic cases it is possible that relief would follow the administration of anti-streptococcus serum. The constitutional treatment is identical with that employed in cases of diphtheria.

THE SPONTANEOUS DISAPPEARANCE OF A SARCOMATOUS TUMOUR.

BY

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Surgeon to the Bristol Royal Infirmary.

A FEW reports of the spontaneous cure of malignant growths have from time to time appeared in various medical journals. But owing to the difficulty of making an exact diagnosis in such cases, the nature of the tumour has generally been called in question and the malignancy doubted. The following record adds to the meagre evidence we have on the subject.

W. R. C., aged 52, gardener, was admitted to the Bristol Royal Infirmary, under the care of Dr. James Swain, in March, 1894. He had, since the previous November, noticed a swelling at the angle of the jaw, on the right side, which had slowly increased in size and had caused irritation but no pain. The man was in apparently good health, and there was no history of syphilis, tubercle, or preceding lesion of the skin of the part affected.

Dr. Swain removed the growth, which was found to be encapsuled but firmly attached to the masseter and other structures, and very vascular. It dipped under the jaw and was adherent to the submaxillary gland. It measured about two inches by one inch in diameter. A small gland was removed with it.

On examination it was found to consist of a soft globular nucleus surrounded by an envelope of yellowish grey material; and outside this was a third zone, darker and softer.

Microscopically small round cells were the chief constituent of all three zones. There was very little stroma.

The wound healed and the man went out and resumed his work; but was re-admitted to the Infirmary, under my care (Dr. Swain being away at the time), on August 10th, 1895, with a smooth, firm, lobulated swelling involving the parts behind and beneath the angle of the jaw (right side), and extending downwards anterior to the sterno-mastoid. There was some loss of flesh and slight pain. The tumour was increasing with some rapidity. He had no other swellings.

It was considered that this was a recurrence of the original tumour, and an operation was decided on.

On August 13th, I made a long incision and exposed the superficial part of the growth. It was encapsuled and smooth, but adherent to the surrounding tissues, and extended deeply into the neck, being firmly adherent to the prevertebral muscles, &c. There was very free hemorrhage, which owing to the depth of the wound was restrained with great difficulty; and it was found to be quite impossible to remove

the tumour. The wound was plugged with gauze. In the evening more bleeding occurred, and artery forceps had to be left on several bleeding points. There was no chance, therefore, of healing by first intention, but the wound slowly granulated up, and in three weeks' time was almost healed.

The patient left the Infirmary and went to stay with friends at Torquay for two or three weeks. On his return I was surprised to find a very marked diminution in the size of the tumour, and the man was putting on flesh. He went away again, to the Isle of Wight and then to Wolverhampton, returning to Bristol at the end of December, four and a half months after the operation. He then appeared perfectly well, and there was no trace whatever of the swelling. He had, however, a small hard gland on the opposite side of the neck.

In February, 1896, he again attended at the Infirmary with enlargement of his right tonsil. A circular ulcer gradually formed, with hard, everted edges, involving the anterior pillar of the fauces and tonsil. Whilst he was attending for the throat he was put upon full doses of iodide of potassium, but he rapidly emaciated, his tongue and breath became very foul, and his general appearance was markedly cachectic. He grew steadily worse; eating and drinking became difficult, and after some weeks I was not surprised to have a message from his wife that he was too ill to attend as an out-patient, and was confined to his house. Nevertheless, without any special treatment, beyond rest in bed and antiseptic washes, this malignant-looking ulcer gradually but completely healed, and the emaciation and cachexia began to improve rapidly.

In July, 1896, the patient came to the Redland Dispensary, and attended under Mr. J. Griffiths (who kindly furnished me with notes), with a round lump just beneath his *left* ear, firm, pigmented and slowly increasing in size. He also complained of swelling of the abdomen, and on examination it was found that the abdominal walls were tense from the presence of ascites. There was much œdema of the lower limbs and scrotum. There was no albumin or other abnormal constituent in the urine, no jaundice, no hepatic enlargement, and no cardiac defect could be discovered. Besides the growth under the left ear, there were two or three small subcutaneous nodules on the arms and legs. The diagnosis of malignant growth was made, and the case was considered hopeless. But in about seven weeks' time the dropsy began to disappear, and gradually left an apparently healthy abdomen.

Meanwhile the lump on the left side of the neck began to increase, and in December, 1896, he was again admitted to the Infirmary under my care. This lump was the size of a small orange, fungating, soft, and dark reddish brown in colour. It frequently bled from the foul cauliflower-like excrescences with which it was covered. As the patient was becoming very weak from loss of blood, I removed this large superficial tumour. Its base was indurated, involving the deep structures of the neck, and no attempt was made to remove this.

Some attempt at healing took place, and the man left the Infirmary improved in health. He had, however, in the groins, and on the forearms and legs, several deeply pigmented lumps, presenting all the appearances of sarcomatous deposits. Microscopical examination of the removed tumour showed small round cells, with numerous blood-vessels and very little stroma.

These subcutaneous nodules rapidly developed, and became very numerous. He died at his house on April 6th, 1897, from exhaustion. He had twenty-two of these pigmented tumours on the right leg alone.

Unfortunately no *post-mortem* examination was made.

It is impossible to review this case without astonishment. The primary lesion appears to have been a lympho-sarcoma at the angle of the jaw. This was extirpated; it recurred, and after an unsuccessful attempt at removal of the recurrent growth, the latter spontaneously disappeared. The ulcer on the tonsil and palate and the ascites seemed clearly due to malignant disease, yet recovery from both took place. The microscopic examination, the clinical features, and the termination by numerous pigmented tumours &c., causing death from exhaustion—all this is strong evidence in favour of the whole cycle of events being malignant.

Could any of these lesions be fairly attributed to syphilis? There is no good reason for thinking so. Quite apart from the general clinical picture of malignancy in this case, it may be said that syphilis rarely, if ever, causes large glandular tumours. The resemblance between tertiary ulcer of the tonsil and sarcomatous disease of the part has, however, been commented on,[1] and it may be noticed that Esmarch[2] expresses a strong opinion that certain sarcomatous tumours are *caused* by syphilis. Those that are improved by arsenic and erysipelas toxins he places in this category.

The so-called lympho-sarcomata should undoubtedly be put in a separate class from the other sarcomata, both on account of their clinical features, their mode of origin, and their structure. It may be said, in fact, that any irritation in lymphatic glands causing hypertrophy may give rise to sarcoma of this nature. G. Ricker, for instance, has reported two cases showing the apparently close relationship between lympho-sarcoma and tuberculosis, demonstrating that the tubercle bacillus may provoke a growth of great malignancy; and Senn[3] lays stress on the *rôle* played by injury and irritation. Nevertheless, primary sarcoma of the lymphatics must be looked upon as comparatively rare.

Even with the microscope an exact diagnosis of these

[1] Vide *N. York M. J.*, 1897, lxvi. 769.

[2] *Ber. ü. d. Verhandl. d. deutsch. Gesellsch. f. Chir.*, 1895, xxiv. 23. [Supplement to *Centralbl. f. Chir.*, 1895, No. 27.]

[3] *The Pathology and Surgical Treatment of Tumors*, 1895.

tumours is obviously difficult, and it is therefore foolish to assert that any swelling which showed on section merely small round cells and followed a malignant course for a time—ultimately disappearing—must be a sarcoma. But the after-history of my unfortunate patient, and the combination of pathological and clinical features, lead to the conclusion that he recovered for a time from lympho-sarcomatous growths by their spontaneous disappearance.

As bearing on this subject, I may mention that the late Mr. Greig Smith reported in the *Medico-Chirurgical Transactions* (1894, lxxvii. 139), three cases of solid abdominal tumours which spontaneously disappeared, and a discussion on this paper may be found in the *Proceedings of the Royal Medical and Chirurgical Society of London* (1894, 3. s. vi. 44).

Progress of the Medical Sciences.

MEDICINE.

That the **diet in typhoid fever**[1] should be of the lightest possible character is, perhaps, considered one of the most reasonable dogmas of the science of medicine. That this dogma should be fixed and unalterable there seems to be some reason to doubt. An interesting paper has recently appeared by Dr. Morris Manges on the subject. Statistics are given showing the percentage of recoveries on a diet containing solid food, and that complications and relapses are not more common. A paper by Barrs, of Leeds,[2] was one of the first on the subject. Since then papers dealing with larger numbers of cases have appeared, the most important by Bushuyeff, a Russian physician. During the year 1897, 318 cases were allowed a liberal diet. Of these 26 died, or 8.2 per cent. The average of deaths for the preceding ten years had been 12.4 per cent. Shattock has also treated 146 cases on a comparatively full diet, with a mortality of 8.1 per cent.

The following are articles of diet given, in the order allowed, in one day by Bushuyeff: Tea with roll, oatmeal, barley or wheat porridge, one or two boiled eggs, a glass of milk with

[1] *Med. Rec.*, 1900, lvii. [2] *Brit. M. J.*, 1897, i. 125.

roll, one half a cutlet and a bit of boiled meat, a plate of chicken broth, tea with roll, a cup of chicken or beef soup, semolina pudding, a piece of chicken, milk with roll. During the night, coffee or tea, with milk, given two to four times. The condition of patients on the full diet is said to be very much better than that of those on a more liquid diet, but it is not possible to persuade all patients to eat.

There is no evidence that on a liberal diet hemorrhages or perforation are more frequent, nor that relapses are more common.

The grounds on which a full diet is justifiable are afterwards briefly discussed. It is remarked that typhoid fever is a general, not a local, disease, and that bacilli are to be found in the blood as early as the fifth day of the disease. It is considered, also, that there is little pathological foundation for the idea that every effort should be made to secure the utmost possible rest for the intestine. There is no reason to think that peristalsis can do harm to the ulcers. While increased peristalsis as a consequence of the more liberal diet can do no harm, ulceration is far less likely to be extensive in a well-nourished than in an ill-nourished body. It has also to be remembered that ulceration may be very slight or absent altogether, while in some cases even swelling of the Peyer's patches or solitary follicles does not occur.

Experience in the *post-mortem* room might suggest that in one way a full diet would introduce an element of danger. With the increased diet a larger mass of fæces could be held above the ileo-cæcal valve. It is in the ileum immediately above this valve that the ulceration almost invariably takes place. The severity of the ulceration in this neighbourhood is probably due to the fact that the delay of the fæces with the numerous micro-organisms they contain allows the micro-organisms to overcome the resistance of the Peyer's patches more effectually than higher up in the small intestine. If delay of fæces at the ileo-cæcal valve is the cause of severe ulceration, then one would think that the full diet should be accompanied by treatment with aperients.

In connection with the subject of the invasion of the intestinal wall by bacilli, it may be interesting to refer to a recent paper by Adami.[1] He briefly refers to the work of various observers, as well as to his own, showing that the Peyer's patches destroy a great number of the bacilli, but that too large a number may be present to be dealt with. Some then enter the portal circulation, and are attacked by the epithelial cells of the liver. Through the liver, however, some micro-organisms pass into the general circulation, to be dealt with by the cells of the convoluted tubules of the kidneys. These facts are not new, but it is well to bear them in mind when considering the question of the more liberal diet in

[1] *Med. News*, 1900, lxxvi. 8.

typhoid fever. Where cells in many parts of the body are striving to overcome bacilli, it is necessary that they should be well provided with nutrient support.

Dr. Adami does not, however, refer to typhoid fever. His paper has more distinct reference to the **production of hæmochromatosis and anæmia** by the invasion of the body by micro-organisms. In hæmochromatosis associated with cirrhosis of the liver, Adami mentions that the probable sequence of events is the entry of micro-organisms into the portal circulation, with consequent inflammatory changes in the liver, associated with blood-destruction. Later, inflammatory changes occur in other organs, especially the pancreas. When fibrosis of the pancreas becomes advanced, diabetes results. Adami mentions that Dr. Mause E. Abbott has confirmed this view of the causation of hæmochromatosis by showing that the masses of pigment can be seen to contain large numbers of micro-organisms.

Two cases of **hæmochromatosis** [1] associated with cirrhosis of the liver have recently been recorded by Osler. One occurred in a man aged 48, the other in a man aged 34.

* * * *

A few papers have appeared recently on the subject of **albuminuria in the apparently healthy.** [2] An interesting point mentioned is the occurrence of albumin in the urine after severe exercise. Thus 83 specimens of urine were taken by Dr. Darling from oarsmen at the Harvard University, when in training for races, and examined for albumin. Of these 83 specimens, 48 contained albumin. After time-rows and races, the urine was found to be invariably albuminous. In one instance the amount was as high as 0.9 per cent. Dr. Herbert Hawkins [3] also refers to albuminuria after exertion. He mentions that, at St. Thomas's Hospital, Dr. Jenner examined the urine of nine members of the Rugby football team after playing in the final cup tie. In every instance albumin was present, and in some cases hyaline casts also. A paper by Mr. Levison [4] tends to show that in slight traces albumin is met with extremely commonly in the urine, especially at one period of life—that is, between the ages of 18 and 25 years. The urine was found to be albuminous in 45.5 per cent. of 129 hospital patients between the above-mentioned ages. One is tempted to imagine that the albumin in the majority of these cases must have been present in a very minute trace. Levison does not seem altogether to admit this. He considers that probably in 25 to 30 per cent. of the cases albumin would have been recognised in the urine by ordinary clinical methods. Since these cases were hospital patients, and the results in some degree open to criticism on that ground, specimens of urine from 108 soldiers were examined. Here not only was the frequency of the presence of albumin

[1] *Brit. M. J.*, 1899, ii. 1595. [2] *Boston M. & S. J.*, 1899, cxli. 205.
[3] *Brit. M. J.*, 1899, ii. 1598. [4] *St. Barth. Hosp. Rep.* 1899 xxxv. 169.

again made manifest, but the effect of exercise in producing albuminuria was illustrated. Albumin was present in 41.73 per cent. of specimens of urine taken before drill, and in 63.23 per cent. of cases after it.

THEODORE FISHER.

SURGERY.

Internal derangement of the knee-joint, or displaced semilunar cartilage—as the popularly accepted pathological phrase puts it,—is common enough; but according to Bennett[1] the symptoms in these cases are by no means always due to the cause which long familiarity has led us to adopt without questioning.

Of 200 cases presenting the characteristic symptoms—all cases which could be classified under the head of "loose bodies" being excluded, 112 were cured by temporary rest, massage and exercise; 83 without the use of any support or other apparatus; but in 39 temporary support was necessary for times varying from three months to one year. In no case in which the rest and massage treatment was commenced after the third attack was sufficient improvement effected to enable the patient, in the absence of operation, to entirely dispense with the use of support of some kind. The cases in which a support was worn permanently amounted to 58. Operation was performed in 27 cases: of these the semilunar cartilage was at fault in 15 only; of the remaining 12 the causes of the trouble were small pedunculated bodies in four instances, and abnormal folds of synovial membrane springing from or near the ligamentum mucosum in eight.

The symptoms usually recognised are: sudden pain, complete fixation or limitation of the power of extension of the leg upon the thigh, followed by effusion into the joint, with tenderness over one or other (nearly always the inner) semilunar cartilage. The only positive sign of the lesion being a displaced cartilage is the occurrence of a deficiency, upon comparing opposite limbs, felt above the head of the tibia on the affected side, in consequence of the displacement of the cartilage freely inwards. Relief may follow almost immediately upon spontaneous reduction of the displaced cartilage or nipped structure, or it may be effected by manipulation; or in some cases, principally the slighter ones, manipulation not only fails to give relief but may cause an increase of the symptoms.

The causes to which these symptoms are due are generally classified as follows: 1. Displacement of a semilunar cartilage. 2. The nipping of folds or shreds of synovial membranes between the ends of the bones. 3. Loose or pedunculated bodies in the joint. To these, however, Bennett adds a fourth, viz.:—Bruising of the peripheral edge of a semilunar cartilage and its

[1] *Lancet*, 1900, i. 6.

attachments without displacement or necessary loosening, the immediate result of the lesion being a local effusion of blood (subsequently reinforced by a certain amount of inflammatory exudation), a portion of which insinuating itself between the bone-ends acts as a foreign body. This is a new idea, and Bennett believes that it fully explains the train of symptoms in the majority of the milder cases of so-called "slipped cartilage." The reasons for this belief are as follows:—1. If the symptoms be due to a portion of semilunar cartilage, loose body, or fold of synovial membrane, they at once disappear, however pronounced they be, after reduction has been effected. In the majority of cases of the milder sort, however, in which the limitation of movement is only slight, "reduction of the displacement" cannot be effected by manipulation. Even under an anæsthetic it is impossible to completely straighten the limb, for it springs back into its former position directly the pressure is removed. The failure of attempts at "reduction" in these cases is due, not necessarily to any want of skill in the manipulation, but to the fact that there is nothing present which in the ordinary sense is reducible. 2. In spite of the apparent intractability of these cases at first, they invariably recover completely if properly treated, and do not recur. 3. The recovery of complete extension is *gradual*, never sudden as in the case when a foreign body has been withdrawn from between the bones. The gradual way in which the normal state is regained is in itself enough to negative the existence of anything like a foreign body in the ordinary sense of the term, between the bones, and the nature of the treatment by which recovery is brought about, added to the absence of any tendency to recurrence in properly managed cases, is strongly corroborative of this contention. 4. Cases submitted to operation have borne out the view here set forth, the semilunar cartilage being bruised and swollen but not detached.

Treatment may be conveniently considered under the following heads:—

1. *The Treatment by Temporary Rest, Massage and Exercise.*—In the exaggerated cases repeated attempts may be made, under chloroform if necessary, to effect "reduction"; but in the slight cases the attempt to restore complete extension should not be repeated if it fails on the first occasion. In all cases in which manipulation has effected reduction (severe cases), or has failed to reduce the deformity (slight cases), active movement should be prevented by complete temporary rest by fixation on a light splint for four days to a week—until the effusion in the joint has subsided. Massage of the joint may, however, be commenced at once; it hastens absorption, and obviates the tendency to flaccidity of the capsule of the joint, which is a fruitful cause of failure in these cases. Upon the disappearance of the effusion, exercise by passive movement is commenced, care being taken that no rotatory motion is imparted to the leg. The passive

movement without rotation, whilst it does not disturb in any way the process of refixation, prevents any troublesome adhesion in the joint itself. Slight active movements are begun in about a fortnight, and at the end of three weeks from the date of injury the patient begins ordinary walking exercise. Massage must be kept up for three weeks to six months or more—until the capsule of the joint is restored to its normal condition of tension.

2. *Treatment by Apparatus.*—All forms of support or apparatus should be avoided, if possible, for they tend to render permanent the wasting of the thigh muscles. The cases in which the use of supports is justifiable are limited as follows:—(1) Cases in which, for unavoidable reasons, the rational treatment cannot be carried out; (2) cases in which the rational treatment fails to restore the normal tension of the knee capsule, or those in which abnormal lateral mobility remains to any marked extent in spite of treatment; and (3) cases in which recurrent attacks of semilunar displacement have occurred frequently,—operation having been for some reason rejected. The object to be obtained by artificial support is the prevention of rotation of the leg at the knee. Bennett thinks that the small spring "trusses" are useless; but I have found Paget's spring truss of much value in some of these cases.

3. *The Operative Treatment.*—In many cases it is practically impossible to determine the real cause of the trouble in intractable cases without an exploratory operation; but as many cases are curable without operation, the explorations should be reserved for (1) cases in which non-operative measures have failed; (2) cases in which general flaccidity of the joint, as shown by an abnormal amount of lateral movement on manipulation, is in excess of the other symptoms; (3) grossly neglected cases in which, from long-continued inflammation, the joint has assumed the aspect of pulpy disease; and (4) in certain cases of expediency (soldiers, etc.). Bennett thinks that nothing short of removal of the offending cartilage is efficient; but the operation is not without risk, and is not always perfect. An L-shaped incision is all that is necessary to give access to the part. Operation should not be undertaken while fluid is present in the joint. After operation massage of the limb above and below the knee is of importance in connection with flaccidity of the joint capsule, and passive movements of the knee may be commenced at the end of the first week.

* * * *

The surgical treatment of the ascites of cirrhosis by the artificial production of peritoneal adhesions seems deserving of further trial, for comparatively few cases have been recorded since this method was introduced by Dr. Drummond and Mr. J. R. Morison.[1] Although it occasionally happens that cases

[1] *Brit. M J.*, 1896, ii. 728.

of ascites are apparently cured by repeated paracentesis, the majority do not so recover. It is probable, too, that many of the recoveries were not really cases of a non-inflammatory ascites such as occurs in cirrhosis of the liver, but were rather inflammatory effusions dependent upon some form of chronic peritonitis.

The method of operation consists in exposing the liver by an abdominal incision, and scraping the adjacent surfaces of the liver and diaphragm by means of the finger or a sponge. In some cases a ligature is passed through the edge of the liver, the omentum, and the cut parietal peritoneum, and the three structures are tied together so as to bring the omentum up between the liver and the diaphragm. This last procedure is regarded with favour by Dr. Rolleston and Mr. Turner,[1] because such stitching of the omentum, the liver, and the abdominal parietes together is more likely to be followed by effective vascular adhesions. In a brief account[2] of two cases they offer some remarks on the technique of the operation, and on the *rationale* of the treatment. Of these two cases, one of the patients improved, lost the ascites almost entirely, and felt much better in health, but was left with an enlarged spleen, so that he cannot as yet be regarded as cured. In the other case the ascites recurred again and again, and though the patient's general state is much better than before the operation, when it appeared that life would not be much prolonged, the result can at best be regarded as only slight amelioration.

It is important that the operation should be done comparatively early, and not postponed until the patient is too debilitated to withstand it, for patients with cirrhosis are prone to secondary infections, especially to peritonitis. Another reason for not delaying operative interference is the importance of intervening before the liver tissue is so degenerated that it is unable to undergo compensatory hyperplasia as the result of the improved blood-supply provided by the adhesions. Medical measures should only be persisted in while the diagnosis is open to doubt; and when a course of iodide of potassium has not benefited a case of ascites which is thought to be due to either syphilis or cirrhosis, medical treatment should be suspended and operative measures employed.

An oblique **incision** skirting the costal margin is recommended in preference to one in the semilunar line, because it appears to give better access to the upper surface of the liver on both sides of the suspensory ligament and to enable the omentum to be stitched on that surface between it and the diaphragm. **Suprapubic drainage** is considered necessary in cases where there is a large amount of fluid present and where there has been a rapid re-accumulation after previous tappings. In one of the cases reported by Dr. Rolleston and Mr. Turner, the enlarged spleen diminished in size after operation, and this they regard as an

[1] *Lancet*, 1899, ii. 1660. [2] *Ibid.*

indication for delay in adopting Talma's[1] practice of a second laparotomy and suture of the spleen to the abdominal parietes.

It has been assumed by Dr. Drummond and Mr. Morison,[2] and Dr. Weir,[3] that the general and local improvement depend simply on the collateral circulation relieving the pressure in the portal vein. Against this it may be argued (*a*) that ascites does not occur when the blood-pressure is presumably highest in the portal vein—viz., earlier in the course of the disease when hematemesis is met with; and (*b*) that ascites is a late manifestation and appears to be rather a result of a toxæmic condition of the blood than a mere mechanical result of increased portal blood-pressure, and that it is the outcome of a poison in the blood exerting a lymphagogue action. The toxæmic state depends on hepatic insufficiency—in other words, on the cirrhotic liver being unable to destroy poisons that are continually passing to it from the alimentary canal; and thus, though an increase in the collateral channels between the portal vein and the systemic veins might modify the engorgement of the portal vein, it would not tend to improve the general state of health, but would have rather the opposite effect. Inasmuch, therefore, as ascites is not a mere mechanical result of increased pressure in the portal vein, and as a very extensive communication between the portal vein and the general venous system leads to a deterioration of the general health, it appears that the good effects of the collateral circulation are not solely due to relieving the pressure n the portal vein.

It seems to Dr. Rolleston and Mr. Turner that there are two possible ways in which the development of a collateral circulation in adhesions around the liver may be beneficial to the economy. 1. By somewhat diminishing the flow of blood through the liver, it may enable that organ to deal more satisfactorily with the blood passing through it, and so reduce the toxæmic condition of the blood which is probably the important factor in inducing ascites. 2. That the increased vascular supply to the surface of the liver may, by improving the nutrition of the hepatic cells, enable them to undergo compensatory hyperplasia. The compensatory hypertrophy of the liver will enable the organ to perform more efficiently its important antitoxic functions and so lead to a latency of the symptoms. If the last hypothesis be true, it is evidently of importance that any operation for the formation of vascular adhesions around the liver should be undertaken before the liver tissue is so disorganised that compensatory hyperplasia is impossible.

In addition to the two successful cases here referred to, ten other cases have been published. Of these, at least three have died from the effects of the operation—two from peritonitis, and one from shock immediately after the cœliotomy.

JAMES SWAIN.

[1] *Berl. klin. Wchnschr.*, 1898, xxxv. 833. [2] *Loc. cit.*
[3] *Med. Rec.*, 1899, lv. 149.

OPHTHALMOLOGY.

Myopia is an error of refraction, due to elongation of the eyeball, and its conditions vary with its degree. When it does not exceed four or five dioptres it is of little disadvantage, except to those who wish to enter the public services, or whose occupations require particularly good far vision; but as the amount increases, it causes more and more damage to the sight, until in its high degrees it becomes a very serious disease. Infants are almost always hypermetropic, and the higher grades of myopia are reached in every instance by gradual development through the lower, so that any case, however slight, may be on its way to the highest degree of the defect. It is therefore of the greatest importance that thoroughly competent medical advice should be sought in every case of commencing short sight, in order that the disease may be arrested if possible, or at any rate prevented from reaching the extreme amount which would result if all prophylactic measures were disregarded. The problem of defective eyesight can under no conditions be properly dealt with merely by testing the refraction and prescribing spectacles, and there is no member of a family whose future comfort and usefulness will depend more on well-timed medical advice and hygienic treatment than the child who is developing myopia.

An adult who wishes to improve his vision by the use of lenses may do so with the aid of the optician, for his own convenience and at his own risk, but the parent of a child who has "something wrong with the sight" should surely obtain a good medical opinion with regard to the defect and its treatment, as he would do in the case of any other disease. Most opticians seem to consider that nearly all forms of defective sight can be remedied by spectacles, provided that moderately good vision, as shown by the routine methods of testing, can be obtained with their aid. Further, some of them seem to be ill-judged enough to suppose that they are quite competent to advise upon and properly treat cases of short sight, as may be seen from the following paragraph which appears in a publication circulating among opticians and devoted to their interests:—"Should this statement prove to be justified by the results, there may after all be some groundwork for the assertion that myopia above seven dioptres should receive the attention of an ophthalmic surgeon." This comment is made after an abstract of a paper by the writer on "The Operative Treatment of High Myopia," a purely surgical subject. It is a new departure for an optician to be the critic of the work or deductions of an ophthalmic surgeon, and I think the journal in question would be better employed in aiming to improve the construction and fitting of spectacles (a business by no means practically perfect), rather than in quoting scientific papers

from medical journals, and that without always giving a proper acknowledgment of the source from which they are taken.

Should the ophthalmic surgeon be consulted only after short sight has developed to a serious degree, his opportunities of benefiting myopic patients will be very distinctly curtailed. Myopes of seven dioptres have eyes which are often permanently damaged: none of them see anything quite distinctly at a distance of more than six inches, while even with the best possible lenses the average vision is reduced to $\frac{6}{12}$; they also require spectacles for reading, and although many of them are able to use their distance glasses for all purposes, others cannot do so, and are put to the trouble and inconvenience of having two pairs.

Moreover, the amount of vision is not by any means a safe guide to the condition of the eye. Thus in two eyes with an equal amount of short sight, a defect of vision in one might result from choroiditis in the neighbourhood of the macula lutea which would call for prolonged and judicious medical treatment, while a more pronounced defect in the other might be accounted for by a congenital faulty development of the nerves, which cannot be cured and need not cause further anxiety.

It is, however, in its highest degrees that short sight causes the greatest inconvenience to patients and damage to their eyes. When the amount of myopia present exceeds thirteen dioptres, the patient is not only unable to see clearly without glasses either at a distance or for reading, but with full correction his best far vision is often reduced to one-fourth of the normal, and he is unable to utilise even this modified sight to its full extent because the glasses cause so much annoyance from prismatic effects and diminution in the apparent size of objects that he usually prefers to wear weaker lenses, in which he is more comfortable although he sees less.

In addition to these defects of vision, highly myopic eyes are especially liable to pathological changes which still further impair their usefulness. The choroid and retina, especially in the neighbourhood of the optic disc and macula lutea, become atrophied, and hemorrhages in the latter situation are of frequent occurrence, leading to loss of central vision. The vitreous becomes fluid and opacities develop in it, giving rise to muscæ and mistiness of sight. Finally, these eyes, owing to stretching of the sclera and degeneration of the vitreous, are peculiarly liable to detachment of the retina. When short sight has reached this extreme degree, it not only interferes with a patient's comfort and capacity to earn his living, but even threatens him with practical blindness, so that we cannot question the wisdom of resorting to heroic measures for its cure, provided that they hold out a good prospect of real benefit.

During the past year special attention has been drawn to the **operative treatment** of high myopia by debates on the

subject, which have been held in the Ophthalmological Society of the United Kingdom[1] and in the Société Française d'Ophtalmologie.[2] So long ago as 1765, a Frenchman, the Abbé Desmonceaux, proposed that short sight of high degree should be improved or cured by removal of the crystalline lens. The risk, however, of interfering with eyes which possessed fairly useful vision appeared to most oculists to be so great as to render the proceeding unjustifiable, and it was not until Fukala read a paper on the subject in Vienna in 1889, giving the result of sixteen such operations, and at the same time showed two of his patients, that the procedure began to be adopted experimentally by a considerable number of ophthalmic surgeons. In the ten years which have since elapsed, a sufficient number of cases have been recorded to enable us to form an opinion as to the value of this method of treatment, and it can safely be stated that it has gained a permanent place in eye surgery. The effect of the operation is to simplify the eye as an optical instrument and to diminish its refractive power to a marked degree. Authorities concur in advising that, as a rule, the crystalline lens should not be removed for the cure of a myopia of less than sixteen dioptres, and it has been found by experience that an eye of this focus will, after operation, see best for distance with a lens of approximately +3D, while an eye with a myopia of twenty-two dioptres will when rendered aphakic become practically emmetropic.

The chief benefit derived by patients who have had their myopia cured by operation is that they are able to see distant objects much better, either without glasses or with glasses of weak focus, than they previously could even with the very strong concave lenses which they then required. For purposes of close sight, however, the results of the operation are less satisfactory, as the patient always requires convex glasses unless the original myopia reached approximately thirty dioptres, a degree practically unknown. As a rule, the lens required for reading is (as in the case of patients who have undergone ordinary cataract extraction) one of +4D, in addition to that which gives the best distance vision, but frequently much stronger glasses than this are preferred, for a time at any rate.

In addition to the improvement in vision, a distinct alteration in the appearance of the fundus has been noticed after operation. The thinning of the choroid and the abnormal distance between its vessels so characteristic of progressively myopic eyes become less marked, and the edge of the posterior staphyloma becomes more clear-cut and distinct. These changes would seem to indicate that the operation has not only an optical action, but also a beneficial influence upon the nutrition and tissues of these faulty eyes.

The chief objections to the treatment are the immediate

[1] *Tr. Ophth. Soc. U. Kingdom*, 1899, xix. 160.
[2] *Rev. gén. d'Opht.*, 1899, xviii. 231.

risks from septic infection and glaucoma. The former of these should be avoided by strict asepsis and skilful manipulation, while increased tension can be relieved by evacuation of the swollen lens-substance which causes it. At a later stage detachment of the retina may result, but so far as our present experience has gone, this very serious complication, which is already predisposed to by high myopia, has been found to occur only in a small percentage of cases.

The eye is usually rendered aphakic by discission of the lens. In children one or two needlings may suffice, but in young adults curette-evacuation will also be necessary to avoid glaucoma. In older patients cure by discission is impracticable, and some modified form of extraction of the lens is indicated.

* * * *

The preparations most commonly used for the treatment of the various forms of **conjunctivitis** are the astringent metallic salts, and of these the most valuable is undoubtedly nitrate of silver. Applications of this drug are decidedly painful and do not penetrate deeply into the tissues, as its acid causes coagulation in the superficial layers of the mucous membrane. In addition to its caustic action, the salt possesses bactericidal qualities which are said to depend upon the metal, of which it contains 63.5 per cent. In the hope of finding a substance which, while free from the undesirable effects of the inorganic salt, would retain its antiseptic properties, experiments have of late years been made with various organic salts of silver. The chief of these are: Argonin, containing 4.25 per cent. of silver; Argentamin, containing 6.35 per cent. of silver; Protargol, containing 8.3 per cent. of silver; Largin, containing 11.1 per cent. of silver.

Protargol and largin seem to be the best, and may with advantage be compared with each other. The former is an albuminate of silver and occurs as a smooth, yellowish powder, which is readily soluble in water (50 to 70 per cent.), and is not precipitated from aqueous solutions by albuminous substances, acids or alkalies. It is not reduced by light, and is unaffected by mixing with cocaine, atropine, or eserine. Its power of penetration is said to be five times as great as that of nitrate of silver.

Largin is a greyish powder, produced by the action of an ammoniacal solution of oxide of silver on an alcoholic solution of the dry product of decomposition of the paranucleoproteids.[1] It contains rather a larger percentage of silver than protargol, but its solubility in water is much less (11.5 per cent.). It would seem that when solutions containing equal percentages of the two drugs are employed, the action of largin should be more powerful than that of protargol, but the greater

[1] *Wien. med. Presse*, 1898, xxxix. 1305; abstract in *Brit. M. J.*, 1898, ii. Epitome, p. 80.

solubility of the latter renders it preferable for use where a very energetic effect is desired. Darier[1] claims to have obtained good results without causing undue irritation with a 33.3 per cent. solution of protargol, which would contain three times as much silver as the saturated solution of largin or as the 2 per cent. solution of nitrate of silver commonly used for brushing the lids.

The argyrosis or brown colouration of the conjunctiva which is well known to follow the incautious use of nitrate of silver has already been observed to occur in a case treated with protargol, and it will probably also be met with as a result of applications of other members of this group of remedies as our experience becomes more extensive.

There seems reason to believe that the claims made on behalf of these preparations will be substantiated. In my own experience they have proved of considerable value, and they certainly cause less inconvenience than solutions of nitrate of silver, but I have found applications of a 20 per cent. solution of protargol give rise to a considerable amount of irritation.

F. R. Cross.

Reviews of Books.

The History of Mankind. By Professor Friedrich Ratzel. Translated from the Second German Edition by A. J. Butler. With Introduction by E. B. Tylor, D.C.L., F.R.S. Three volumes: xxiv., 486; xiv., 562; xiii., 599. London: Macmillan and Co., Ltd. 1896–1898.

Professor Ratzel's work is one of those encyclopædic productions in the domain of anthropology of which our own fellow-citizen James Cowles Prichard gave us the first example, followed by Waitz, J. G. Wood, and Robert Brown. The present work was well received in Germany on its first appearance more than ten years ago, and was well worthy of the translation which has been executed from the revised edition published in 1894-6.

Physical anthropology was later in its inception as a study than ethnography; but for a time it surpassed the latter in its progress and in the interest taken in it by the leaders of the science. But of late years this has ceased to be the case, especially in England, where, notwithstanding the wide field offered by our extensive colonies and foreign possessions, comparatively little work is now being done in physical anthropology. Indeed the Russians, the Italians, and even the Spaniards, have latterly done more and better work in this part

[1] *Clin. opht.*, 1899, v.

of the field than the English or the Germans. On the other hand the study of the arts and customs of mankind, primeval or contemporary, of the æsthetic, archæological and social departments of the subject, has been prosecuted with ever-increasing vigour and success. As Dr. Tylor, in his interesting and only too short introduction, puts it, "in our time there has come to the front a special study of human life through such object-lessons as are furnished by the specimens in museums," things which used to be looked on as little more than curiosities and hardly suspected of being instructive.

Professor Ratzel's programme is "to impart a knowledge of mankind as we find it to-day throughout the earth," and more especially a knowledge of the "lower strata of humanity;" and "to trace actually among these lower strata the processes which have rendered possible the transition to the higher developments [in the superior races] of to-day. Ethnography must acquaint us not only with what man is, but with the means by which he has become what he is, so far as the process has left any traces of its manifold inner workings." Hereupon he makes the very true and pregnant, but by no means superficial, observation that "the difference of civilization which divides two groups of mankind may bear no kind of relation to the difference of their endowments." He goes further, and after mentioning Nachtigal's Tedas of Fezzan, the Garamantian Troglodytes of Herodotus, who are at this day in the same stage wherein Herodotus knew of them, and after contrasting their history with that of our own kindred, he puts this momentous question: "Are we [as individuals], in physical or intellectual power, in virtue, in capacity, any further ahead of our generations of ancestors than the Tubus [or Tedas] of theirs?" Evidently he thinks we are not; and the followers of Weissman ought to agree with him.

To general considerations of this kind scarcely a tenth part of these three good-sized volumes is dedicated. We have not space to spare for Professor Ratzel's generalisations, which indeed are given so succinctly, as a rule, that they are hardly capable of condensation. His opinions, often original, sometimes, as we think, erroneous, but never baseless, are very clearly expressed. Thus, "In the high plateaux of Mexico and Upper Peru we have land less fruitful than the surrounding lowlands; and accordingly on these plateaux we find the highest development of civilisation in all America." "Another mode in which civilisation may perish is through the absorption of higher races by lower, who profit by the advantage of better adaptation to conditions of hardship." "In North America rapid decay befell all native industrial activity, as the result of the introduction by white men of more suitable tools, vessels, clothing and so forth." "Every people can learn the language of every other; and therein the civilised races have no absolute superiority over the savage." "The highest cultivation of

gesture-language seems to be reserved for the inventive, but at the same time, taciturn Indians of North America." "Let us remember how in Abyssinian Christianity, Mongolian Buddhism, Sudanese Mahommedanism, great religious thoughts have dwindled away beyond recognition. The propagative force of religious ideas is as great as the certainty that they will dwindle when they are cast forth into the wilderness of the materialistic savage life." "The primitive temple more often grew out of the churchyard than had the churchyard appended to it."

The above are specimens of Professor Ratzel's opinions. But by far the greater part of his work is not made up, or even largely interspersed with, such generalities: it consists of masses of details respecting the physical characteristics, manners and customs, dress, weapons, houses, religious views and observances of the different tribes, nations or races. Like Topinard, he is fond of laying stress on the impossibility of absolutely pure races: he sees everywhere the outcome of ancient or modern mixtures and crosses. In following out this idea he gives an interesting account of the migrations of the Polynesians and Micronesians, and puts forward conjectures as to the origin and composition of the Australian people, and as to the migrations, counter-migrations, amalgamations and cleavages of the innumerable tribes of Africa. On those of the nomads of Central Asia he is less explicit: the subject is so difficult as to be somewhat repulsive. He quotes, however, an interesting and significant Tibetan legend. A man roamed over the steppes with his three sons. When he died, each one of the three wanted to have the body, in order to bury it in his own fashion: "this was the first quarrel. The eldest got the head, went eastward, and became the father of the cunning Chinese. The second was content with the limbs [the locomotive apparatus] of the deceased. He left his home and settled where the enormous deserts allowed his posterity, the Mongols, room enough to move about. The youngest took the breast and stomach" (and, we suppose, the heart and liver, the last being the supposed seat of the affections); "and from him are descended the people of Tibet, who in daily intercourse are distinguished by good nature, frankness, and cordial feeling, and in war by valour and courage."

With the physical side of anthropology Professor Ratzel is not so much concerned as with some other departments; but any deficiency on that score is made up for by the very numerous and excellent reproductions of photographic portraits, many of which, said to be from the collection of Pruner Bey, we recognise as the handiwork of that modest and industrious labourer in the field, the late M. Potteau of the Jardin des Plantes. As regards complexion, Professor Ratzel seems to attribute intellectual superiority and masterly qualities almost invariably to the fairer races and types, though the darker ones are sometimes superior in the industrial arts.

We cannot dismiss this excellent book without another word of appreciation for the numerous and beautiful illustrations, especially the coloured representations of furniture, weapons, domestic implements, &c., printed by the Bibliographisches Institut, Leipzig. The translator also well deserves his share of praise.

The Mystery and Romance of Alchemy and Pharmacy. By C. J. S. THOMPSON. Pp. xv., 335. London: The Scientific Press, Limited. 1897.

In many, if not most, medical libraries there is a small space devoted to the lighter side of literature, wherein may often be found volumes of anecdote relating to the history of the profession of medicine and its followers. In this not too conspicuous corner *The Mystery and Romance of Alchemy and Pharmacy* may well find a place.

The earliest authentic prescription, the mystic teachings of the Greek philosophers, the black art, the quack, and that symbolic instrument the mortar, all furnish texts for interesting discourses in the first section of the book. The second is occupied by well-remembered extracts from the writings of authors, from Chaucer to Marryat, who have portrayed the alchemist, the empiric, and their successors. Mr. Thompson has produced just the kind of book that is useful to "ease off" the strain of a long day's application to work before retiring to rest.

Poison Romance and Poison Mysteries. By C. J. S. THOMPSON. Pp. viii., 255. London: The Scientific Press, Ld. 1899.

Mr. Thompson deals with a mysterious subject, one which always attracts a large number of readers, guided often by intelligence, but much more largely by curiosity. The work is clearly and well written, but is evidently intended for the lay rather than the professional mind. The "Poisons of Antiquity" go back into the remote ages. "Gula" seems to have been the patroness of medicine and a divinity of the Arcadians, as far back as 5000 B.C. In the more classical times poisons were looked upon as a luxury, and only the wealthy could ensure a safe and prompt dispatch, and certain professional miscreants had their tariff of charges in accordance with the social rank of their intended victims. No doubt several of the most ancient active poisons were ptomaines combined with arsenic or other ingredients. Nine chapters—vii. to xv. inclusive—relate the histories of as many celebrated criminals—between the years 1840 and 1889, or from the case of Mme. Lafarge to Mrs. Maybrick.

In a book on "Poison Romance" something, amongst general

questions, might have been said about the charges made against the Jews of poisoning the wells in the times of the Black Death; and among particular instances, there might have been some reference to the alleged attempts at poisoning Queen Elizabeth by Dr. Lopez, who is supposed by some authorities to have been taken by Shakspere for his portrait of Shylock. Local pride also looked for the inclusion of Mr. William Herapath's name in the record of "The Rugeley Mystery." Mr. Thompson, by the way, seems to be unaware that Shakspere took the details of Juliet's potion direct from Arthur Brooke's translation of Bandello's version of the story.

We can recommend the book to anyone interested in these terrible crimes, and who is not? Why is there no index?

William Stokes: his Life and Work (1804—1878). By his Son, WILLIAM STOKES. Pp. 256. London: T. Fisher Unwin. 1898.

The fourth volume of the "Masters of Medicine" series, written by Sir William Stokes, Surgeon-in-Ordinary to the Queen in Ireland, has as its object "to convey the impression of the wide sympathies, many-sided nature, and greatness of the character portrayed, not so much by description, as by a simple record of the scientific work achieved by him, along with what may be gathered from his addresses and occasional letters, of his exalted standard of professional honour, and his love and appreciation of the beautiful in Nature and Art." Five pages of bibliography conclude the volume. The work for which Stokes will be long remembered was *Diseases of the Heart and Aorta*, published in 1854, in which he insisted on the utility of a system of graduated muscular exercises in the treatment of debility of the heart.

But Stokes was more than an accomplished physician. He was a man of much general culture, and in almost any branch of letters or science to which he might have devoted his life-work he would have been distinguished. A very striking and beautiful portrait, after Sir Frederick Burton, adorns the volume.

Dictionnaire des Termes de Médecine, Français—Anglais. Par H. de MÉRIC. Pp. vi., 243. London: Baillière, Tindall and Cox. 1899.

In the preface the author says that he has been reproached by some for including in the English-French predecessor of this volume many words not strictly belonging to medicine. So far from reproaching him for this laudable fulness, we think it a great recommendation. It is convenient for the medical reader to be able to find in the same dictionary terms belonging to the

cognate sciences as well as those referring to his own technicality. Did we feel inclined to qualify our praise of this volume, it would be on the grounds that it is less full in explanation and less wide in comprehensiveness than its companion. At the end of the volume is a table of French weights and measures with their English equivalents, and some examples of prescriptions in both languages, which will prove useful to many, although the statement that "1 minim = 56 centimetre cubes" requires some alteration. We hail the completion of a work which distinctly fills up a gap in our medical dictionaries.

Studies in the Psychology of Sex. By HAVELOCK ELLIS. Vol. I. —*Sexual Inversion.* Pp. xvii., 204. London: The University Press. 1897. Vol. II.—*The Evolution of Modesty. The Phenomena of Sexual Periodicity. Auto-Erotism.* Pp. vii., 313. Leipzig: The University Press, Limited. Philadelphia: The F. A. Davis Company. 1900.

Some interest out of the ordinary attaches to this work, because of an unwise prosecution of a bookseller in London by the Commissioners of Police for the sale of vol. i., which it was alleged was issued with the intent to corrupt the morals of the people. The second volume, therefore, was published abroad.

There can be no doubt, we think, as to the unadvisability of the issue of this and kindred works, some of which are translations from foreign tongues into English, without any restriction whatever on their sale. They are certainly stated to be issued for scientific purposes only, and to no one but medical men, teachers, lawyers, and the clergy (a very wide *clientele*); but it is a well-known fact that they can be easily obtained by any and every one, and are being so obtained for the satisfaction of a prurient and unhealthy curiosity. Far be it from us to say that such works should not be published, but it would certainly seem extremely desirable for the good of our younger generation that a wholesome restriction of a more stringent sort than at present exists should be exercised over their sale now that the good old practice of writing such works in the Latin tongue, through decay of classical knowledge, has ceased to exist.

The publication of the translation of Dr. R. von Krafft-Ebing's *Psychopathia Sexualis*, and of Dr. Tarnowsky's work and several others, has led to a great deal being known generally of the strange power which sexuality exercises over the feelings, thoughts, and conduct of men and women at large. The subject, though for long past well known to those engaged in psychological work, and on its darkest side to the medical jurist, has not perhaps received that attention which it ought to have done at the hands of medical practitioners. Many of the strange ideas of patients; many of the unaccountable actions of the young; numerous morbid fancies, or unusual contraventions of the

ways of decent society, might have been accounted for satisfactorily by the physician if more had been known of the anomalies of the sexual instinct; and if it had been realised that many of these acts in their more outrageous and criminal forms were certainly symptoms of a constitutional malady, or of a weakness of cerebral condition thus manifesting itself.

Now that men and women, through these works and in other ways, have eaten of the tree of the knowledge of good and evil, it seems necessary that medical men should obtain some exact knowledge of the causes and conditions of the development of these sexual aberrations, and how they may be the product of, or be influenced by, hereditary constitution, education, and modern conditions of society, as well as of the methods by which they should be treated. For this purpose some study of the evolution of man, of love, the married life, and the development of the sexual anomalies must be acquired. In Mr. Havelock Ellis's book we find much that is useful to this end set forth clearly and in a fairly scientific way. The chapters on the Evolution of Modesty, and the Phenomena of Sexual Periodicity in vol. ii. are particularly interesting. We observe that little importance seems to be attached to the religious side of the question, or the great help that may be obtained in the treatment of this class of case by an appreciation of the duty of self-restraint and chastity imposed upon us as Christians. The work is worthy of attention and consideration, though assent cannot be given to all the deductions of the author.

A System of Medicine. By Many Writers. Edited by THOMAS CLIFFORD ALLBUTT, M.D., F.R.S. Vol. VII. Pp. xii., 937. Vol. VIII. Pp. xii., 998. London: Macmillan and Co., Limited. 1899.

These two volumes, forming an addition to the number of which it was originally intended that the work should consist, are occupied wholly in respect of the former volume and to about half of the second volume with the discussion of the important subjects of Diseases of the Nervous System, including Mental Diseases. Vol. vii. opens with the completion of the consideration of Diseases of the Spinal Cord. Myelitis is treated at moderate length, and Erb's symptom-complex is dismissed in four lines. Short articles on caisson disease, spastic paraplegia, amyotrophic lateral sclerosis, are given; longer ones on poliomyelitis anterior, acute and chronic, and locomotor ataxy, and a really splendid description of disseminated sclerosis by Dr. Risien Russell, tend largely to emphasize the high tone of the quality of this section of the volume. The late Sir T. Grainger Stewart has contributed articles upon spastic paraplegia, hereditary ataxy and cerebellar ataxy; although neither here nor elsewhere do we find any allusion to Babinski's sign as a token

of organic disease of the lateral tracts. Bulbar palsies are treated of by Dr. Beevor with a valuable and instructive fulness.

The section on Diseases of the Brain is introduced by some articles on general cerebral questions, the longest and most important of which is that by Prof. Ferrier on the regional diagnosis of brain lesions: this is particularly valuable from so high an authority, and is well brought up to date. Dr. Charlton Bastian gives his already well-known views on aphasia. Dr. D. B. Lees and Dr. Barlow at last give a full account in an English text-book of simple meningitis, as well as of the tubercular form, in children. Dr. Byrom Bramwell treats of abscess and tumours of the brain, hardly, perhaps, so fully as might have been expected, had it not been for Prof. Ferrier's article before mentioned. Drs. Savage and Goodall discourse separately of general paralysis of the insane in a good but not convincing manner; if this topic was to be handled by two authorities, one should have been an alienist and one a neurologist, considering how long many cases of this disease continue before they need to be certified and placed under the charge of the alienist. The remainder of the volume is devoted to the consideration of several of the functional diseases of the brain, such as epilepsy, only too concisely treated by Sir Wm. Gowers; the difficulty of distinguishing vertigo, narcolepsy and some other conditions from "petit mal" is very great, and deserves a full and close treatment in a standard high-class work like this. The final portion of the volume is contributed by Dr. Risien Russell in several articles on chorea, the "tics," and some other subjects. Chorea, including the various diseases comprehended under that term, is handled in a most satisfactory manner, with all the author's ability and plenitude of learning and research.

Vol. viii. contains the remainder of the articles on Diseases of the Nervous System and the section devoted to Mental Diseases. In the former group there are several valuable articles. Dr. Vivian Poore reiterates his view that craft-palsies are not due to disorder of any hypothetical "co-ordinating centre" in the cortex. Sir William Gowers thinks that the motor cortex of the brain is the seat of the invisible morbid process causing paralysis agitans, a morbid change invisible to us because, perhaps, we have fixed our attention on nerve cells and not upon dendrites. An instructive article on hysteria by Dr. Ormerod follows, and the section is brought to a conclusion by an admirable discourse on neurasthenia by the Editor and Mr. Victor Horsley. Dr. Clifford Allbutt's style finds an appropriate outlet in giving a graphic description of the forms of neurasthenia, which he considers is due neither to "over-excitability" of nervous structures nor to auto-intoxication. It is impossible not to be convinced that this section on Nervous Diseases has done much to raise the position of English Medicine, and to prove how much good and strenuous work is now being done by neurologists in this country. We

feel incapable of adequately expressing our thanks to the authors for so splendid a gift to the profession.

The section on Mental Diseases is edited with the help of Dr. Savage, who has joined to himself as co-operators the leading authorities on insanity in this country. Their expositions will appeal rather to the alienist than to the general physician, but among the series of articles composing the section are several which appeal also to the practitioner who is not a specialist in insanity. Of this latter kind are articles on dull and nervous children by Dr. F. Warner, and on night terrors by Dr. Leonard Guthrie. The relations between vice, crime, and insanity are treated of in a most valuable article by Dr. Mercier, whose medico-legal notes in the *Journal of Mental Science* display his authoritative knowledge of this topic. Criminal lunacy in England is treated by Dr. Nicolson, formerly of Broadmoor; and, finally, a very useful article on English Law and Practice of Lunacy is contributed by Dr. Outterson Wood and Dr. Savage. Considering, however, how unfamiliar lunacy law is both to medical men and to solicitors, a fuller exposition of this important subject would have been of greater value.

Nearly five hundred pages of vol. viii. are devoted to Diseases of the Skin, and have been edited with the able help of Dr. Payne, who has written many of the special articles. The names of the writers are all those of men who are known as dermatologists of renown, and they have produced a series of chapters whose merits are beyond all praise.

The article on Erythema is well done, but we think the mention of a new word (erythrodermia) coined by Besnier might have been omitted, as additional names are, to say the least, very perplexing to students, and should be discouraged. It is intended to include extensive areas of reddened skin (usually accompanied by some degree of infiltration) of doubtful nature, such as are met with in the preliminary stages of mycosis fungoides. This condition may be present for many months, but cannot be diagnosed with any certainty as long as other lesions do not present themselves.

Of the different substances which may cause eczema, we cannot see why mustard, turpentine, and croton oil should be called organic irritants, while ammonia and acetic acid come under chemical irritants. We agree that any of these may produce an eruption indistinguishable from eczema; and that it seems impossible to draw a sharp line between artificial and spontaneous eczema. We are of opinion that Unna overstates the general feeling in the profession that the action of bacteria in the skin so commonly causes eczema; and we think with the author of the article that eczema set up by organisms casually alighting on the skin is probably, to say the least, rare; although these organisms would explain two remarkable properties of eczema—namely, its chronic persistence and its local infectiveness.

As the author points out, the term seborrhœa is unmeaning if there is truth in Unna's opinion that in this condition the sebaceous glands do not participate, but that it is the sweat glands which are perverted in their action. The hypothesis of the implication of the sweat glands, however, as stated, receives little support. It seems to us that the scalp, the perineal region, and the foot are well named the bacterial nurseries. They are the parts where saprophytic bacteria are most abundant, where certainly many more than one species vegetate, and from which they may spread to neighbouring parts, giving rise to local inflammations or eczemas. There are many most useful details given as to treatment; but we do not observe any general reference made as to the antiseptic plan almost universally adopted in the present day.

Under the causes of true or inflammatory acne we are pleased to notice a distinction is given between this condition and impetigo, namely, that in acne, all organisms are sometimes absent, or so few in number as to be unimportant—pustles of acne differing in this respect from those of impetigo. Unna denies the activity of the staphylococci entirely, and regards all stages of acne, even the most severe, as due to his acne bacillus. It is also mentioned (which we think is quite correct) that the suppuration of acne follicles is often connected with a seborrhœic process of the skin, or the adjacent scalp, whence microbes are scattered upon the face and shoulders.

The chapter on drug eruptions is very complete, and with these are described the erythemata produced by the injection of antitoxic serum.

A supplement on malarial fever, giving an account of the life-history of the parasite of malaria, and a copious general index, concludes the last volume of Allbutt's system; a work which speaks eloquently for the ability and energy of its distinguished editor, and which will not soon be out of date or forgotten.

On the Relation of the Nervous System to Disease and Disorder in the Viscera. By ALEXANDER MORISON, M.D. Pp. xiv., 132. Edinburgh: Young J. Pentland. 1899.

The Morison lectures delivered before the Royal College of Physicians in Edinburgh in 1897 and 1898 form the groundwork of this volume, which deals with the histology of the visceral nervous system, more especially as revealed by modern investigations by Golgi's process of staining, and afterwards with the pathology of disorders of visceral motion and sensibility.

There is but little evidence of original work in the book, and the discussion of the various problems is not very illuminative or suggestive. It must be confessed that one does not rise from reading the volume with much clearer ideas on the subject.

This is perhaps inevitable; for as the histology and physiology of the visceral nervous system are hardly known, the pathology scarcely admits of generalisations.

Anæmia and Some of the Diseases of the Blood-forming Organs and Ductless Glands. By BYROM BRAMWELL, M.D., F.R.S. Ed. Pp. 450. Edinburgh: Oliver and Boyd. 1899.

There is very little new in this book, but it presents detailed and accurate accounts of a most interesting group of diseases, which it is most convenient to have in one volume. The style is rather that of the lecture room—too easy and redundant—than that of a book to be read; and there is some amount of repetition. The volume contains descriptions of the various kinds of anæmia, of leucocythemia, Hodgkin's disease, Addison's disease, myxœdema, exophthalmic goitre, and acromegaly; but there are some omissions to be noted: there is no mention of the parathyroid glands and of the possible part they play in exophthalmic goitre, nor of the rare disease achondroplasia, so closely related to cretinism, and Hutchison's researches on the chemistry of the thyroid gland are not described.

The attempts to harmonise conflicting views are sometimes amusing. Thus, in discussing the etiology of Addison's disease, Dr. Bramwell states that "some of the symptoms . . . are due to destruction of the [suprarenal] capsules, while others are due to implication of the nervous structures with which they are connected," but does not make the least attempt to state what symptoms are referable to each of these lesions.

One great defect of the book is the absence of illustrations. For these one must turn to the author's excellent *Atlas of Clinical Medicine*. The book under review is in reality made up of articles selected from the *Atlas*, amplified and brought abreast of current knowledge, but without the pictures which gave to the former work such lasting value.

Encyclopædia Medica. Under the General Editorship of CHALMERS WATSON, M.B. Vol. II.—*Brachial Plexus to Digestion.* Pp. vi., 562. Edinburgh: William Green & Sons. 1899.

This work, the first volume of which was reviewed in our last number, is on similar lines to its predecessor. The articles are rather more numerous, amounting to sixty-two, and those on the nervous system have a fair number of diagrams which are original and clear. Several articles on Brain extend to over a hundred pages, and are written by well-known authorities on the nervous system. The article on Bronchitis, extending to some twenty-two pages, is by Dr. Watson Williams, and a

perusal of it leads one to the inference that there are more resources available than are commonly employed. Dr. S. H. Habershon gives a good summary of Bronchiectasis, and speaks favourably of the continuous inhalation of creasote, and of drainage when the evidence is in favour of a single cavity.

Dr. Urquhart remarks that "the neuroses incident to the change of life have not been studied with that care and accuracy which the subject demands," and accordingly he writes a very good article of six pages on Climacteric Insanity. We may mention incidentally that he considers it reasonable to suppose that the artificial injection of ovarian substance will in a measure restore the balance which has been destroyed by the production of an artificial menopause. The subject of Climate and Acclimatisation is well summed up by Dr. R. W. Felkin, of the British East Africa Company. Various articles, on such subjects as Colour Vision by Bickerton, Constipation by Langwill, Infantile Convulsions by Coutts, Diabetes Mellitus by Williamson, Diet by Hutchison, and Digestion by T. H. and J. A. Milroy, are all good summaries of our knowledge on the various subjects, and show that this volume will not be consulted in vain by those who desire the most modern views in various departments of medicine.

Atlas of Urinary Sediments. By Dr. HERMANN RIEDER. Translated by FREDERICK CRAVEN MOORE, M.D. Edited and Annotated by A. SHERIDAN DELÉPINE, M.B. Pp. viii., 111. London: Charles Griffin & Company, Limited. 1899.

The author is assistant in the medical clinic of Prof. v. Ziemssen, and this atlas will be found most useful to all clinical teachers, students, and medical practitioners. It contains 36 plates, comprising 167 figures, which with other figures in the text practically represent all the sediments found in the urine. The plates are beautifully executed, very clear, and many of them printed in colours; they will be found invaluable for reference in investigating the nature of any particular deposit. The arrangement of the book facilitates such reference. The drawings have so far as possible been made under a uniform moderate magnification, such as most practitioners use in clinical work. Special attention has been paid to the polymorphic forms of the more common deposits. Following the plates comes a full description of the various deposits met with in urine, especially dealing with their characters, mode of occurrence and pathological significance. The editor, Dr. Sheridan Delépine, has contributed to the text numerous and valuable additions, which are enclosed in brackets, and has also added some figures and an alphabetical index. In all respects the book is a good and useful one, and the most complete on the subject. The publishers also must be congratulated on the general style of the

work, and the way in which the plates have been executed. We feel sure that to look through the book is to desire to possess a copy of it.

Klinische Erfahrungen über Diabetes Mellitus. By von Dr. E. Külz, Prof. Drs. Th. Rumpf, G. Aldehoff und W. Sandmeyer. Pp. xiv., 552. Jena: Gustav Fischer. 1899.

When Dr. Külz died in 1895, he left behind him an enormous collection of observations and records of cases of diabetes. Rumpf, who had worked with him, was requested to utilise them. He has published in this volume the history of 692 patients, with a most elaborate analysis of the results of treatment and discussions of the chief complications and symptoms of the disease. The volume forms an important contribution to our knowledge, and one which will have a permanent influence. Such a mass of facts has probably never before been collected, and no subsequent writers can afford to overlook them. Külz took the view that there is only one kind of diabetes, and that all the apparently different forms can be resolved into variations of severity and individual resistance under identical disturbances. The chief point in the treatment he adopted was dietetic management, adapted to each individual so as to increase the power of assimilating starch. Thus the effects of each change from the strictest to ordinary diet on the excretion of sugar is recorded, together with the presence of acetone, and the quantity of ammonia, urea, and albumin. The amount of labour which has been employed in this monumental work must have been enormous. The essays on kidney and other complications of diabetes are even by themselves elaborate monographs.

Difficult Digestion due to Displacements. By A. Symons Eccles, M.B. Pp. 138. London: Baillière, Tindall & Cox. 1899.

The displacements here concerned are not those of the uterus, so commonly described, but the conditions known as enteroptosis and gastroptosis, with a chapter on movable kidney, and another on prolapse of the sigmoid flexure. The author rightly attaches considerable value to the practice of auscultatory percussion in the estimation of the size of a dilated or displaced stomach; and he considers that "the treatment of enteroptosis appears to be almost as important as that of hernia; for in some cases the existence of visceral displacements may lead to the more dangerous conditions of hydro-nephrosis, as in movable kidney; volvulus and intussusception in the small intestine, and possibly cancer in the large bowel; while in gastroptosis there is always a risk of gastrectasia."

It is satisfactory to observe that the numerous cases reported

by the author have all been much improved by simple methods of treatment, such as rest in bed, suitable diet, and massage; the maintenance of the general nutrition of the body, and particularly the muscular tone of the abdominal walls, have usually sufficed; and even in the cases of movable kidney, the padded belt has usually kept the kidney in place, so that more active surgical intervention has not been necessary.

The Diseases of the Stomach. By WILLIAM W. VAN VALZAH, M.D., and J. DOUGLAS NISBET, M.D. Pp. 674. London: The Rebman Publishing Co., Ltd. 1899.

We think that the author has not altogether avoided the fault to which he alludes in his introduction as exemplified in many text-books, of describing "as distinct diseases what are in reality only the functional signs of disease," and of "the mistaking of a condition for a disease." He also carries the differentiation of diseases of the stomach to an excessive degree, beyond, in fact, the limits of a practical differential diagnosis. Thus, to take for example gastritis, no less than ten varieties are described, each with its appropriate group of symptoms, one of which is an old friend of the out-patient department, gastric fever; the latter surely a needless resuscitation in a scientific text-book. After this we read with relief that the author will not describe interstitial gastritis as a distinct form. The account of phlegmonous gastritis is insufficient in a special book of this kind, although it is such a rare disease. Then the author has given us a new nomenclature, no doubt very good, but the titles are too long; we take for example such a mouthful as adenohypersthenia gastrica, one variety of the "dynamic affections of secretion."

In places the book appears unpractical, as when, in the diagnosis of gastralgia, the differentiation from gastric ulcer instead of being given first as of the greatest practical importance, is put after a number of other affections.

We must also dissent from "anorexia nervosa" being treated in a work on diseases of the stomach as a gastric affection; such a view leads to a totally erroneous idea of the nature of the disease and of its proper treatment. In spite, however, of the above unfavourable remarks which we have felt obliged to make and have put first, there is a good deal to praise in the book, and it will be found to contain a quantity of information by anyone who can give time to its study. There is much common sense in the advice on treatment. Unfortunately, owing to the too diffuse style in which it is written, it is of too great length, and there is a good deal of irrelevant writing which obscures the real merit of the work; for it is a book of real value, and obviously the outcome of much knowledge of the subject. Especially we recommend the very full section on the methods of clinical investigation of diseases of the stomach,

which will be found most useful for reference. The advice as to the methods to be employed and the treatment to be carried out is trustworthy and good, and the book is a mine of information on these points and on the composition of articles of food and matters of diet generally. In advice as to diet the author errs, perhaps, rather on the side of over-detail; but this can hardly be called a fault in a book written for medical men.

Thoracic Resection for Tumors Growing from the Bony Wall of the Chest. By F. W. PARHAM, M.D. Pp. iv., 147. New Orleans. 1899.

Tumours of the chest-wall are not very common, but every now and again surgeons have to consider the advisability of their removal, and a careful study of the records given in this book will be of material assistance. The book is mainly a collection of records of cases, and hence the tendency to formulate rules of practice from insufficient facts is avoided; and if the surgeon will devote sufficient time to the study of the cases, he can form his own opinions as to the best way to deal with such conditions. But it would be a mistake to suppose that the entire value of the book lies in these records, for the author has ably summarised the main facts and drawn important conclusions from them.

Many of the records provide a most interesting study of the effect of freely opening the pleural cavity. In one case in which a growth of the sternum was removed, both pleural cavities were opened, but the patient recovered. Dr. Parham records two cases of his own. One of these is particularly interesting, as it shows that after collapse of the lung from free opening of the pleura, if the lung can be brought up and fixed, it will gradually expand and become functionally active again. Many of the cases have been taken from Mr. Stephen Paget's book on *The Surgery of the Chest*. There is one case of operation for cancer of the chest-wall, secondary to breast cancer. Few surgeons operate on such cases.

We must object to Dr. Parham's explanation of the production of pneumothorax. He says the pneumothorax pushes the mediastinum to the opposite side. If the pneumothorax consisted of a collection of air within the pleural cavity under pressure, as may exist in certain cases of perforation of the lung without external wound, then the mediastinum might be pushed over by the air: when one pleural cavity is freely opened, as in an operation on the chest-wall, the mediastinum is not pushed over, but when one lung is collapsed, it is drawn over by the elastic traction of the other lung.

Some very remarkable experiments on lung resection are referred to, and the subject of excision of portions of the lung in the human being is considered.

The work is certainly one of considerable value.

Atlas of Syphilis and the Venereal Diseases. By Dr. FRANZ MRACEK. Authorised translation from the German. Edited by L. BOLTON BANGS, M.D. Pp. 16, 122. London: The Rebman Publishing Co. (Ltd). Philadelphia: W. B. Saunders. 1898.

The seventy-one full-page coloured plates have been selected to illustrate those forms of venereal disease which are of frequent occurrence and of practical importance, only those which are rarely seen and are chiefly of interest to the specialist being omitted. They are reproductions of water-colour drawings taken from actual cases, and a brief outline of the clinical history of the patient is given with each. In addition, 116 pages at the end of the work are devoted to a condensed systematic account of the disorders which have been illustrated, and of their treatment. We would suggest that the numerous prescriptions given would be more useful to the British practitioner if the proportions of the active ingredients were given uniformly to a total quantity of the preparation of ℥j. or Oj., rather than to irregular quantities like ʒijss., ℥ij., ℥vj., and Oij.

The plates are of excellent quality, and appear to us to illustrate their subjects as well as any plates could do so. We believe they will prove of much use to those practitioners who have few opportunities of examining actual cases, and to students who have their experience yet to acquire. The handy size of the atlas is a very commendable feature.

A Manual of Chemistry. By ARTHUR P. LUFF, M.D., and FREDERIC JAMES M. PAGE, B.Sc. Pp. xvi., 541. London: Cassell & Company, Limited. 1900.

This book is incomparably better than its predecessor, known as Luff's *Chemistry*. In the preface to the previous work it was suggested, as a recommendation, that the wants of a medical student could be best gauged by one who had been through the courses qualifying for medicine. This may be so, but something more was needed, and the author is to be congratulated on having now secured the collaboration of a chemist, with the result that the inaccuracies which disfigured the original volume have been removed. The principal on which Luff's *Chemistry* appears to have been written was to start with certain preconceived theories; and if the facts did not fit them, so much the worse for the facts. They were simply altered so as to make them fit; thus the formula for nitric oxide was written N_2O_2 instead of NO, in order to make nitrogen a triad.

In the present volume the facts—except for a few misprints such as $\{^{Ca\,Cl}_{Ca\,O\,Cl}$ instead of $Ca\{^{Cl}_{O\,Cl}$, p. 139—are stated correctly, and those of the old theories which were based on false or distorted facts are discarded. The use of rational formulæ has now also

rendered the description of organic chemistry readable and intelligible.

The improvement is so great that whereas the writer of this review felt it necessary to warn his students against using the original edition, he will be quite content to see the present one in their hands.

Surgery. By THOMAS PICKERING PICK. Pp. xix., 1176. London: Longmans, Green, and Co. 1899.

Mr. Pick tells us that this book is the substance of the lectures on surgery delivered by him for fifteen years at St. George's Hospital, modified, of course, as surgery has advanced, and mainly intended for the use of students. He explains that he is only able, in the space at his command, to give his own views as to the nature of the injuries and diseases of which the book treats, and is not able to refer to the views of others; and that he cannot do more than recommend the methods of treatment he has himself found most useful, with merely an incidental allusion to other methods. But on perusal of the book we are glad to find that it very well represents the practice of surgery of the present day, for we think that this is of much more use to students than Mr. Pick's own views; though, no doubt, to old St. George's students the views of their teacher of surgery would be of particular interest. But what the student requires, in a text-book of surgery, is a representation of the generally-received views as to the nature of injuries and diseases and their treatment. Students not only have to prepare for the future treatment of patients, but they have to encounter a body of gentlemen at the College of Surgeons who may not hold Mr. Pick's particular theory, or adopt his line of treatment. We certainly think it is very important for every writer of a surgical text-book, and every lecturer of surgery in a Medical School, to teach his own views however novel they may be; but we also hold very strongly that he should make quite clear what the generally-received view is, and wherein his own differs from it.

Mr. Pick's book is a very excellent one—well written, clearly arranged, and with accounts of quite modern views, and methods of treatment. It is one we can strongly commend to students. We may wish that here and there a little more space might have been given to the elaboration of some diseases, which are considered in very bare outline; but, unfortunately, this is the inevitable result of having to include so large a subject in so small a space.

We notice that surgical diseases of the female generative organs receive more attention than usual in a work of this kind, and the information given is valuable. We are glad to see that reference is made to Dean's method of exploration for cerebral abscess. Calot's treatment of deformity from Pott's

disease of the spine is also mentioned, but Mr. Pick wisely declines to express any opinion as to its merits at the present time. The chapters on fractures and dislocations should be of special value, as Mr. Pick has written one of the best books on the subject. We notice reproductions of a few skiagrams illustrating this subject. We think the drawings of pathological specimens and morbid clinical conditions are not very good; and we strongly object to such an indefinite way of writing of a method of treatment as the following directions for operating for anal fistula. Mr. Pick says: "If the walls of the main sinus are much thickened, as is usually the case, they should be dissected away with scissors or a knife, and a clean raw surface left. If this is thoroughly done, the surfaces of the wound may now be brought together by sutures, and the convalescence materially hastened; but in most cases it is better to dust the wound with iodoform, and then pack it with gauze soaked in iodoform emulsion." If suturing hastens convalescence, why is it better in most cases not to employ it? Let the method be either advised or condemned for some definite reason. We cannot, of course, expect the relative merits of various methods of treatment to be discussed at length in this work. The student has not the difficult task of deciding which method of treatment to adopt out of several possible methods, and hence the information of such a text-book as this is sufficient for them, if only the advice given is clear and consistent.

Taken as a whole, the book is one which we can safely place in the hands of students, and which we feel sure will become very popular with them.

A Manual of Surgery. By CHARLES STONHAM. Three volumes. Pp. xiii., 343; xv., 383; xxi., 725. London: Macmillan and Co., Limited. 1899.

It is a common complaint amongst students that the larger text-books of surgery are too voluminous, while on the other hand the teacher or examiner often finds that the student has solely depended for his knowledge on the scanty and cramped information in the smaller (but popular) works, which are little more than "cram-books." Assuming for the moment that justice will be meted out to the contending parties by a little mutual concession in the adoption of a middle course, we may say that the present manual—one of the publishers' new series—can be regarded as a judicious compromise.

The first volume treats of general surgery. Inflammation and its associations, the infective diseases, and tumours are well described. In the section dealing with deformities, however, there is a tendency to be brief: the account of scoliosis is very meagre and there is no mention of coxa vara. Volume ii. deals with injuries. In fractures of the shaft of the femur, Liston's long

splint is regarded as most convenient, instead of the much less irksome treatment by means of a weight-extension over the end of the bed. The section dealing with spinal injuries requires some revision. It is desirable to point out the cases which are unsuitable for laminectomy in fracture-dislocations of the spine, especially as we are told on p. 278 that in complete division of the cord reflex actions return in a day or two and are exaggerated. The effect of diastasis of the spinal column with a complete crush of the cord is just the converse of this. Volume iii. treats of regional surgery. "Simple epiphysitis" is treated in four lines, and the treatment of appendicitis is very brief.

A feature of the book which is most useful is an index to the whole work in each volume. The illustrations are numerous, but some of them (such as fig. 35) are lacking in artistic qualities. Regarded as a whole, the book is sound in its teaching, and the author has well utilised the space at his command. We recommend it as a step in the right direction, but still hope that students and practitioners will recognise the unwisdom of thinking that the mastery of a few dogmatically stated facts is the best means of acquiring true knowledge.

The Exploration of the Urethra and Bladder. By M. TUCHMANN, M.D. Pp. vi., 56. London: H. K. Lewis. 1899.

The author of this monograph has devoted many years of patient study and investigation to the subject of the anatomy of the human bladder, especially as affecting the use of catheters and sounds, and gives us the results of his observations in an interesting and practical manner. The principal object of his investigations seems to have been the perfecting of an instrument called "The Ureter Forceps," to be used for introduction into the bladder for the purpose of grasping and closing the orifice of one of the ureters so as to examine the urine coming from each kidney separately. Although the author tells us that he has used this instrument for the last twenty-five years, and has introduced it into the bladder of living subjects more than 1000 times, and has never had any bad results, yet we are not convinced of the harmlessness of the procedure. He recommends that the orifice of the ureteric valve should be grasped within the blades of the forceps and held closed for fifteen minutes, during which time the urine is allowed to flow from the other ureter only, so that it can be collected and examined. We fear that injury to the walls of the bladder must inevitably ensue in many cases as a result of this pinching up of the mucous coat, and we are of opinion that the use of the cystoscope is much more likely to be of service in this method of examining the urine of each kidney separately than the use of the ureter forceps, although, doubtless, the author by long

experience and practice has rendered his employment of the instrument quite simple and safe.

The book is well worthy of perusal, as it is evidently the work of a lifetime of careful experimental research.

Animal Simples Approved for Modern Uses of Cure. By W. T. FERNIE, M.D. Pp. xxiv., 565. Bristol: John Wright & Co. 1899.

This book is a companion to *Herbal Simples*, two editions of which we have noticed in these pages: like its forerunner, it displays much research and investigation. Dr. Fernie has industriously consulted many mediæval bestiaries and old books on medicine, and has compiled a work which possesses much interest, even if it is a little "snippety." A judicious revision of the text would have removed some of the paste-and-scissors quality and the occasional discrepancies. Medically the book is distinctly homœopathic, and some of the statements therefore will appear insufficiently established to those who are not of the author's persuasion, but for general instruction the work may be read by any one with profit.

Operations-Vademecum für den praktischen Arzt. Von Dr. EDMUND LESER. Pp. viii. 190. Berlin: S. Karger. 1900.

In these pages there is a succinct account of modern surgical methods as practised by the author. General principles rather than minor details are discussed; but the book is profusely supplied with illustrations, which serve most usefully to exemplify and amplify the description of the surgical procedures.

Therapeutic Electricity and Practical Muscle Testing. By W. S. HEDLEY, M.D. Pp. ix., 278. London: J. & A. Churchill. 1899.

Strictly speaking, the term "therapeutic electricity" includes only the direct application of currents to the living body. The value of this book is, however, greatly increased by the author's wise decision to add a description of the electric cautery and the electric illumination of cavities.

The work is divided into three parts. The first deals briefly with general principles—the definition of "pressure" and "potential," the statement and applications of Ohm's law, the measurement of E.M.F., and so forth. Incidentally, it is pointed out that the choice and arrangement of cells has important practical bearings. Dr. Hedley insists that the rapidity of vibration of induced currents should be variable at will; and the absence

of provision for this requirement is a defect of most English and German coils. The equipment for "static" treatment is figured and described in detail; and a chapter is devoted to the currents of great frequency and high potential first investigated by d'Arsonval, accredited with remarkable nutritive effects, and employed with considerable success in some cases of diabetes. The first part concludes with a chapter on the use of "Current from the Main." In the second, the electro-therapeutic outfit is described; the physiological effects of electricity are discussed under such headings as "electrolysis," "cataphoresis," and "electrotonus"; the technique of electro-diagnosis is explained; and the motor points are indicated by drawings after Castex. In the section which explains the normal law of contraction, the text would, we think, be rendered somewhat clearer by the addition to Fig. 68, which illustrates the position of the "virtual" anode and kathode when the actual anode is applied over a nerve, a second diagram illustrating their positions when the *kathode* is so applied. To most readers the third section of the book will be the most attractive. Here the various modes of general and local electrization are described, and the average "dosage" is, wherever possible (but only approximately), indicated. The electro-therapeutics of numerous diseases is then given at some length, with a few illustrative cases. Thus the author describes a case of ataxic paraplegia treated by himself with truly remarkable and lasting success by galvanisation of the cord and hydro-electric baths. There is also an account of a case of trigeminal neuralgia relieved by Bailey by the cataphoretic introduction of cocaine and aconite. To the fascinating subject of cataphoretic medication a chapter is devoted. The author has some interesting remarks on the electrical treatment of ileus and *post-partum* hemorrhage.

We cordially recommend this book as a thoroughly conscientious piece of work. A brief but comprehensive manual of electro-therapeutics was certainly wanted, and Dr. Hedley's book seems to us to meet every reasonable requirement. It certainly does not err on the side of over-statement: there is no unscientific exaggeration of the scope of electrical treatment. The book is interesting throughout, though in places it is rather stiff reading. We note two or three misprints: on page 168, "kalelectrotonus"; on page 171, "Hodge" (? Head); on p. 253, "guteal," for gluteal.

Vaccination: its Natural History and Pathology. By S. Monckton Copeman, M.D, Pp. x., 257. London: Macmillan and Co., Limited. 1899.

Dr. Copeman's lectures of 1898 are of considerable interest and importance in relation to the ever-prominent question of compulsory vaccination. The earlier chapters are concerned

with the history of the introduction of vaccination by Jenner, and a consideration of the sources of lymph. The histology of the vaccine vesicle and its bacteriology are then considered, and the history of animal vaccination and its introduction discussed. The remaining chapters are devoted to a careful consideration of the bacteriological purification and preservation of vaccine lymph by glycerine, with special investigations as to the action of glycerine on pathogenic and non-pathogenic micro-organisms. These chapters are fully illustrated by reproductions of photographs.

Modern Cremation. By Sir H. THOMPSON, Bart., M.B. Third Edition. Pp. xii., 187. London: Smith, Elder, & Co. 1899.

The contents of this book are sufficiently indicated by its sub-title, "Cremation: Its History and Practice to the present date, with information relating to all recently improved arrangements made by the Cremation Society of England." Sir Henry Thompson undoubtedly makes out a strong case in favour of cremation, but we doubt whether public opinion is yet sufficiently advanced to permit its general adoption. We learn that from 1885 to 1898 inclusive a total of 1,283 cremations took place, of which the largest number in any year, 240, were performed in 1898.

Archives of Neurology from the Pathological Laboratory of the London County Asylums, Claybury, Essex. Edited by F. W. MOTT, F.R.S., M.D. Pp. xii., 552. London: P. S. King and Son. [N.D.]

Dr. Collins in his preface calls these archives the first fruits of the establishment of the County Asylums Laboratory at Claybury and the appointment of Dr. F. W. Mott as Superintendent of it. The London County Council are to be congratulated on the result of their enterprise in giving an opportunity for research into the pathology of mental diseases, and most on having enlisted in this work the services of so distinguished a neurologist and pathologist as Dr. Mott. We have no doubt that, good as this volume is, subsequent ones will maintain an equally high level under his superintendence, and will form a most valuable addition to neurological literature.

The present volume deals chiefly with the all-important subject of syphilis in its relation to mental diseases. Dr. Mott has an introductory paper on this subject, and then goes on to describe a number of cases exhibiting the gross lesions of syphilis as it attacks the brain directly. But the more subtle and indirect action of the poison of syphilis on the central nervous system probably gives rise to more cases of disease, and these far less amenable to treatment, than the gross lesions; and

in this connection the part played by syphilis in the etiology of general paralysis is of importance. Dr. Mott's views on the relation between syphilis and general paralysis are well known, and he gives here in another paper an account of his observations on the subject. In this connection, another paper by him on twenty-two cases of juvenile general paralysis, deserves a careful perusal. There are several other papers dealing with various important points in the pathology of general paralysis and indeed considerably more than half the book is taken up by the articles, which together constitute a systematic investigation into this disease.

Then follows an important paper on the chemistry of nerve degeneration, and the rest of the volume comprises chiefly reports on the pathology of different cases of interest, all of which will repay study, and would be individually mentioned here if the exigencies of space allowed.

Experimental Study of Children. By ARTHUR MACDONALD. Washington: Government Printing Office. 1899.

It is desirable that we should have pointed out to us the necessity of complete methods for child study, both as an important branch of investigation into civilised man and for guidance in estimating the measure of the child's mental capabilities, and the proper relation to be observed between physical and mental culture. In three chapters from the Report of the Commissioner of the United States Bureau of Education, extending to 400 pages, Mr. MacDonald well says: "The establishment of the measure of work according to the strength of the individual is fundamental to the economy of health." He discusses methods of study, and lays much stress upon the value of anthropometry as affording a test for systems of physical culture. The author personally studied 1,074 children in the Washington schools, considering cephalic index, and sensibility to heat and locality in relation to mental ability, sociological condition, sex and puberty; whilst anthropometrical, sociological, and psychological study of nearly 22,000 children was made by their teachers under careful supervision. Lastly, an investigation into abnormal children was carried out. The following are some of the main conclusions arrived at by the author: Dolichocephaly increases as mental ability decreases; dull and unruly boys seem to have a large percentage of long heads; the children of non-labouring classes are more sensitive to heat and locality on skin than those of labouring classes. From study of the whole mass of children it appears that as the circumference of head enlarges mental ability increases; that girls are heavier and taller for a certain time, one or two years, before puberty; that bright boys are in general taller and heavier than dull boys; that a mixture of nationalities seems unfavourable to the development of mental

ability. As regards the abnormal children, boys of non-labouring classes show a higher percentage of sickliness than those of the working orders; defects of speech are more common in boys than girls; there is more unruliness in boys, especially the dull ones; abnormalities are most frequent at dentition and puberty; such children are inferior in height, sitting-height, and head-circumference to children in general. A great number of investigations made by acknowledged experts supplement the author's own studies. Bearing especially on his remarks concerning a necessary parallelism to be kept between mental and physical culture are Dr. Porter's conclusions, derived from examination into 33,500 children. These are, in general terms, that mediocrity of mind is associated with mediocrity of physique, and that no child whose weight is below the average for its age should, as a rule, be put into a school-grade beyond the average of its age, except after physical examination.

To all those engaged in psychological study, with either special or general aims, this book should appeal. The author has been markedly successful in giving everywhere a clear analysis of the enormous amount of statistical matter.

The Diseases of Children. By GEORGE ELDER, M.D., and J. S. FOWLER, M.B. Pp. xiii., 391. London: Charles Griffin and Company, Limited. 1899.

The list of clinical handbooks published by Messrs. Griffin has received a useful addition in the volume before us. Though we do not as a rule like books which at best profess to be only half-measures, we confess to a decided liking for this one; for with small type and closely-set lines, much more is contained in it than in many similar books professing more. The few illustrations which are inserted are good and typical examples of the conditions or diseases they represent. We think students will find the work a useful one; but it requires some knowledge of general medicine to fully appreciate much that it contains, as the authors have not quite written down to a student's level. Possibly they intended it for senior students and practitioners, though for the latter some parts, such as treatment, are not sufficiently full, a fault only too common in works on children's diseases.

Medical work in this department has suffered a distinct loss by the recent premature death of Dr. Elder, who at the early age of thirty has been taken from us by an attack of influenza.

Skiagraphic Atlas of Fractures and Dislocations, with Notes on Treatment, for the Use of Students. By DONALD J. MACKINTOSH, M.B. London: H. K. Lewis. 1899.

When we find included in this book skiagrams of a bullet in the chest, a needle in the hand, &c., we are inclined to think

that the title "Skiagraphic Atlas of Fractures and Dislocations" is somewhat of a misnomer. As a record of the everyday X-ray work of a large general hospital it is excellent, but hardly to be dignified by the title of an atlas.

Like all other series of skiagrams, some prints are better than others.

We think it is a mistake to introduce the question of treatment into a book of this sort, for a description of treatment must necessarily be perfunctory. Take the treatment for Colles's fracture for instance. After very properly insisting on reduction of the fracture, the directions given to put up the injured part on "an anterior junk splint" would not convey much information to a student who had not been educated at the Western Infirmary, Glasgow. If the book had been kept exclusively to X-ray work, and some more details given about the means used in producing the skiagrams (such as length of spark, whether hard or soft tubes were used, &c.), we think its value would have been materially increased.

The "get up" of the book is very good indeed, and the reproduction of the plates leaves nothing to be desired.

Extra-Uterine Pregnancy: a Clinical and Operative Study. By JOHN W. TAYLOR. Pp. x., 205. London: H. K. Lewis. 1899.

The surgeon will find this book a very good guide upon a subject that requires all the light that can be thrown on it. The chapters on Diagnosis and Treatment are the best we have ever read; their chief merit consists in the very practical way in which the subject is treated. We congratulate the author on the very successful series of cases with which he has illustrated his work.

Sajous's Annual and Analytical Cyclopædia of Practical Medicine. Vol. IV. *Infants, Diarrhœal Diseases of*, to *Mercury*. Pp. vii., 622. Philadelphia: The F. A. Davis Company. 1899.

The Editor in his preface directs especial attention to the first article by Professor Blackader, of Montreal, and to an elaborate paper on Malarial Fevers, by Professor James C. Wilson and Dr. Thomas G. Ashton. The article on Locomotor Ataxia, by Dr. W. B. Pritchard, of New York; that on Intubation, by Professor F. E. Waxham, of Chicago; and that on Diseases of the Liver, by Professor Alexander McPhedran, of Toronto; that on Meningitis, by Dr. Charles M. Hay, of Philadelphia, are all entitled to special notice as models of their kind. The article on Insanity was one of the last works of Professor George H. Rohé, of Baltimore, who had been connected with the *Annual* since 1891. This article "is in keeping with the sincerity of purpose that characterized him."

The Medical Review (Medical and Surgical Review of Reviews). Edited by NATHAN E. BOYD, M.D. London: Connaught Mansions.

The second volume, January---December, 1899, contains 768 double pages, forming an indexed and illustrated monthly summary of all that is important to the practitioner in the medical periodicals of the world. The following quotation from the title page indicates the aims and uses of this handsome volume:

"By the suppression of all unessential matter, a paper written with any definite object—and such alone is valuable—can generally be compressed into a comparatively brief report, and yet remain a clear and readable account of the subject, so that nothing of importance is lost, and often, in lucidity, much is gained. Merely to mention a few of the leading features of an article serves no useful purpose."

The Johns Hopkins Hospital Reports. Vol. VIII. Nos. 1–2. *On the rôle of insects, arachnids and myriapods, as carriers in the spread of bacterial and parasitic diseases of man and animals.* By GEORGE H. F. NUTTALL, M.D., Ph.D. Pp. 152. Baltimore: The Johns Hopkins Press. 1899.

This is a most fascinating collection of the facts and literature relating to a little known province of natural history. Few readers who take up the story will be content till they have perused it from end to end. It contains much which has been forgotten and much which is only accessible elsewhere in second-hand reports. The writer has brought together from scattered sources an immense number of records, facts and theories as to the disease-carrying agency of flies, fleas, ants, ticks, bugs, and mosquitoes.

He shows that in some cases the experimental work done in support of these statements is exceedingly scanty, and many of them must be doubted; but in others, such as the life history of the mosquito, our knowledge has been carried beyond the region of doubt, and placed on a firm foundation. With regard to the mosquito, so much has been done in the last twelve months that his well-told tale is already a little out of date, but he has done well to bring out the remarkable anticipations of Dr. King, who preceded the present workers. The late American war, too, led to a copious literature on the spread of typhoid by flies. He finds that the conveyance of anthrax by flies is possible, but probably rare; the experimental evidence, too, is against the action of fleas and bugs. Both the latter have been accused of spreading the plague in India, but though there are some grounds for the belief, more evidence is needed. However, the importance of flies in carrying cholera germs, and scattering them amongst articles of food is not to be doubted, and indeed

it is clear that typhoid is easily disseminated in the same way, when care is not taken to disinfect the excreta. The sections on the marvellous conveyance of the filaria, the Texas cattle fever, and on the part played by the Tsetse fly, are fascinating in the extreme, and the copious facts as to the life history of mosquitos, collected from out of the way records, should be of great value in the present investigations.

Nursing in Diseases of the Throat, Nose, and Ear. By MACLEOD YEARSLEY, F.R.C.S. Pp. x., 113. London: The Scientific Press, Limited. 1899.

The appearance in book form of this excellent series of articles by the author in "*The Hospital Nursing Mirror*" will be welcomed by those nurses whose work is largely connected with these special classes of affections, especially as they have been amplified by chapters on the elementary anatomy and physiology of the regions. The text is clear and full; the illustrations numerous and useful. The small volume contains everything that the nurse need know, and much else besides which will be found most useful by practitioners who are occasionally called upon to treat special affections of the nose, throat or ear.

Mental Nursing. By WILLIAM HARDING, M.D. Pp. viii., 91. London: The Scientific Press, Limited. 1899.

During the past few years great advance has been made in the status of attendants on the insane, from the "keeper" of old to the intelligent nurse of the present, and for their still further improvement the new edition of *Mental Nursing* is specially adapted. The sections on Elementary Anatomy and Physiology and First Aid have been omitted, and replaced by others of more immediate value. The book now forms a sound guide for the treatment of the insane from the practical nursing point of view, and as such it can be strongly recommended. The author shows an intimate knowledge of the difficulties and onerous duties of nurses; their responsibilities are pointed out and encouragement is given to overcome the difficulties by an intelligent interest in, and study of, the various phases of mental disease.

The Elements of Vital Statistics. By ARTHUR NEWSHOLME, M.D. Third Edition. Pp. xii., 353. London: Swan Sonnenschein & Co., Lim. 1899.

Since the appearance of Dr. Newsholme's *Vital Statistics* in 1889 the manual has become indispensable to all engaged in public health work. The new edition bears evidence of considerable labour bestowed on the revision of every section, and

the information has been carefully modernised. Several new diagrams add to the value of the work, which appears in a new and improved form.

Photo-Micrography. By EDMUND J. SPITTA. Pp. xi., 163. London: The Scientific Press, Limited. 1899.

A thoroughly scientific and at the same time an eminently practical treatise is given to us in this handsome quarto. We especially like the arrangement of the several chapters; devoting a separate chapter to low, medium, and high-power work is a very good method of arrangement. The chapters on the microscope and lens, and on the substage condenser, are remarkably lucid and clear, and will be found as useful by microscopists as by photographers.

After reading the chapter on Illuminants, one comes to the conclusion that the use of limelight is a necessity for photo-micrographic work with the high powers of the microscope: but humbler workers in the art who have not the power of providing themselves with the necessary apparatus for this need not despair of getting excellent results with other means; *e.g.*, we have seen excellent photographs of bacteria taken with the incandescent gaslight, and also some taken with magnesium wire. This latter means of illumination is not mentioned in the book.

The book does credit to publishers as well as author, and we cordially recommend it to all workers on the subject. The reproductions of photo-micrographs in the plates at the end of the work are beautiful.

Notes on Preparations for the Sick.

Vitogen.—G. F. HARVEY Co., Saratoga Springs, N.Y. Agents for Great Britain: THOS. CHRISTY & Co., London.—This is a light pinkish yellow non-odorous powder of antiseptic character. It is one of the many substitutes for iodoform, and its use is said to be unattended by any poisonous results. Its chemical composition is not stated.

The "Multi" Dressing (Registered) of Hartmann's Absorbent Cotton Wool.—THE SANITARY WOOD WOOL Co., LD., London.—The dressing is put up in convenient form, but the specimen of wool sent us is not quite as absorbent as others we have used. The generally reliable character of Messrs. Hartmann's products is well known.

Nasal Duct Irrigator.—WHITE AND WRIGHT, Liverpool.—We have received the adjoining woodcut, which represents a cannula for irrigating the lachrymal sac and nasal duct. It has

been used in its present form for two years by its designer, Mr. Hugh E. Jones, of Liverpool, and has given perfect satisfaction. The chief points about the instrument are the following:—1. It is made of silver. 2. The cannula is closed at the distal end and two catheter eyes cut as near the end as possible. In this way the use of the stilette is avoided, while it is practically impossible to injure the delicate mucous membrane of the duct while passing the cannula. 3. The outside diameter does not exceed that of Bowman's original No. 6 probe, so that it is only necessary to divide half the length of the canaliculus in order to pass the instrument. 4. There is a tap at the proximal end of the instrument whereby the flow from the irrigator (which should be at least 6 feet above the patient's head) may be controlled by the hand which handles the instrument. If preferred the cannula can be obtained without the tap, and a clamp used on the irrigator tube.

Many new **Tabloids** have been issued by the firm of Messrs. BURROUGHS, WELLCOME & Co.

Tabloids.—Bismuth Subgallate gr. v. is insoluble in water or alcohol; it is therefore best administered in a dry state as a compressed tabloid. In various kinds of dyspepsia and diarrhœa these tabloids should be a very convenient and useful form.

Aloes and Iron, sugar coated, gr. iv.
Colocynth Comp. compressed, gr. iv.
Zinc Iodide, gr. ij.
Cannabinol, gr. j.

Cascara Sagrada, gr. iij.
Cascara Sagrada, gr. j.

These tabloids of the dry extract are prepared with the idea that the stronger one may be taken once, twice, or even thrice daily for habitual constipation until the habit of a regular action of the bowels is established, when the dose may be reduced to the weaker tabloid taken once daily. They are issued both plain and sugar coated.

Potassium Chloride, grs. xx.

These are recommended as preferable to common table salt for the use of the gouty. They are easily crushed into powder at the table and taken with the food.

"Tabloid" Artificial Effervescent Mineral Water Salts.—These "Tabloid" Mineral Water Salts form pleasant effervescent draughts, one in a given quantity of water being equal in strength to the same volume of Carlsbad, Kissingen, Vichy, or Natural Seltzer Water. They are far more compact than ordinary salts or bottled waters, and render possible a continuous course of mineral water treatment in all lands and under all circumstances.

Soloid.—BURROUGHS, WELLCOME & Co.—Potassium Permanganate gr. iij. and Alum gr. v. These compound soloids are a very convenient form for the easy production of an efficient antiseptic and astringent solution for many purposes.

Glycerine Enule.—BURROUGHS, WELLCOME & Co.—A rectal suppository containing 95 per cent. of pure anhydrous glycerine in a patent protective sheath.

Nepenthe Suppositories.—FERRIS & Co., Bristol.—These are made in three strengths, equivalent to ½ grain, ¼ grain, and ⅙ grain of morphia.

THE ELBERFELD FARBEN FABRIKEN COMPANY have sent us the following samples of their excellent preparations:

Somatose.—A tasteless and odourless albumose food.

Trional.—A most reliable hypnotic, now given most conveniently dissolved in aërated water.

Tannigen.—An intestinal astringent.

Europhen.—An odourless substitute for iodoform.

Aristol.—A cicatrisant of the first order.

Analgen.—A specific for malaria and anti-rheumatic.

Losophan (Triiodometacresol).—Antiparasitic.

Iodothyrine.—One tablet is equivalent to five grains of fresh gland.

Lycetol.—A uric-acid solvent.

Heroin.—An excellent substitute for codeine.

Creasotal.—Creasote carbonate.

Duotal.—Guaiacol carbonate.

Aspirin.—A new substitute for salicylic acid, with no unpleasant by-effects.

Egg Emulsion of Cod Liver Oil.—PARKE, DAVIS & Co., London.—Contains 40 per cent. of Cod Liver Oil emulsified with egg and flavoured with Brandy. It has the aspect of a perfect emulsion, and has the quality of permanency. It readily mixes with water, milk, or wine.

Elixir Saw Palmetto and Santal Compound.—PARKE, DAVIS & Co., London.—Is a very elegant preparation of several useful drugs which have an established reputation for the purpose of overcoming vesical, urethral, and prostatic irritability.

D.C.L. Malt Extract.—THE DISTILLERS' COMPANY, Limited, Edinburgh.—Malt extracts contain besides the diastase of the malt and predigested starch (maltose and dextrine), some of the albuminates and salts of the barley. They are not only nourishing in themselves, but they help to digest other nourishment as well. This company claim to be the largest firm of distillers in the world, and to have facilities at their disposal for making the very best malt extract. It appears to be all that can be desired.

MEETINGS OF SOCIETIES.

Bristol Medico-Chirurgical Society.

December 13th, 1899.

Mr. W. H. HARSANT, President, in the Chair.

The minutes of the last meeting were read and confirmed. Dr. A. B. McKee, Dr. F. N. Cookson, Dr. W. A Milligan, and Mr. F. P. Mackie were elected members.

Mr. G. MUNRO SMITH showed a patient with syphilitic disease of the elbow of two years' duration. There was anchylosis of the elbow but not of the radio-ulnar joint, and a large mass of new bone had been formed at the lower third of the humerus. A photograph and a skiagram of the patient's arm were shown. He also showed a patient with a marked anterior curvature of both tibiæ, associated with inward rotation of the leg at the knee-joint, which caused a partial dislocation of the patella. He thought the condition was possibly one of achondroplasia rather than of rickets, as there were no signs of the latter disease elsewhere.

Mr. J. PAUL BUSH showed a man suffering from phosphorus necrosis. The patient had worked in a match factory as a dipper, and first noticed his health begin to fail in 1898, when an abscess formed in the upper jaw, discharging some sequestra, probably portions of the floor of the nose. Mr. Bush, after most careful enquiry, was able to exclude syphilis, either congenital or acquired, as a cause. In September the patient got some ulceration round his lower teeth, several of which came out, and in February, 1899, developed septic pneumonia, from which he recovered, only to lose more teeth from further ulceration of the lower jaw. There is now considerable thickening in front of the jaw. Albumin is present in the urine.—Dr. SYMES asked if Mr. Bush had examined the pus for tubercle bacilli, and referred to a paper by Stockman on this matter. (*Brit. M. J.*, 1899, i. 9.)—Mr. ROGER WILLIAMS did not think Mr. Bush had excluded syphilis as a cause, as he found signs of it in nodes on the tibia.—Mr. BUSH stated he had not examined for tubercle bacilli.

Mr. BUSH also showed a man, a boxmaker by trade, who had suffered since 1896 from actinomycosis. The first signs were cough, pain in the chest, and a swelling below the left clavicle. It was at first thought this was an empyema pointing, but on opening it the characteristic yellow granules of actinomycosis were seen. Microscopic examination confirmed the diagnosis. Iodide of potassium in drachm doses was given, and though improvement was seen at first, it had not been maintained. Fresh nodules appeared in other places, such as the neck, back, and chest-wall, and in all the man had undergone eight or nine operations for removal.—Mr. ROGER WILLIAMS spoke of the necessity of recognising these cases, as he believed they were often mistaken for malignant growths, and when cured were reported as successful cases of operations for tumours.

Mr. CARWARDINE showed a specimen of extra-uterine gestation. On examining the patient, he found displacement of the uterus and a small tumour. At the operation the Fallopian tube opened into a cystic cavity near the uterus, which bled on being opened. The wall of this cyst appeared to be made of organised bloodclot. No fœtus was found. A corpus luteum was observed in the ovary. The patient recovered.—Dr. AUST LAWRENCE thought the case was one of tubal abortion, and asked if the onset was acute.—Mr. MORTON asked if any chorionic villi were observed.—Mr. CARWARDINE agreed with Dr. Lawrence on the nature of the case, and said that the onset was not acute, the patient suffering for some days from recurrent hypogastric pain. No chorionic villi were seen. He also showed a cyst of the vermiform appendix found while operating on a woman for ovarian cyst. It was as large as a pigeon's egg, and as it could not be emptied he removed it successfully.—Mr. ROGER WILLIAMS asked whereabouts the constriction was. The fluid in these cases was succus entericus, and such cases were mentioned by Virchow as typical retention cysts.—Mr. CARWARDINE, in reply, said the constriction was at the middle and terminal third, and he could assign no cause for it.

Mr. MUNRO SMITH related the case of a man, aged 37, who suffered from anthrax. In July, 1899, a cow at the farm on which he worked died after three days' illness and was buried. Early in October another died after two days' illness, and eight days later another, the only symptom being that the beast refused its food. The patient had helped to bury the animals, and said he did not touch them much; but he had a "heat bump" on his wrist, which he scratched as it itched. Next day the arm began to swell and a sore came like a vaccination mark, with a circle of vesicles round it. The swelling extended up the arm, and when Mr. Smith saw him on October 22nd the sore was a depressed slough with dark edges. The whole infected area was removed freely, and the raw surface scraped and rubbed with pure carbolic acid. Numerous incisions were made in the arm and 1 in 20 carbolic acid injected. The man improved and went on satisfactorily till November 6th, when, after the removal of a sloughing tendon from the wound, his temperature rose to 103.5° and continued high for four weeks, when cellulitis of the left leg appeared, and the patient nearly died. Improvement set in again, but the temperature again rose from a gluteal abscess, which was followed by necrosis of the astragalus. After operation improvement was again noticed, and the patient was then in a fair way for recovery. Dr. Symes had verified the diagnosis by culture of pure anthrax. A lantern slide was shown of the growth.—Mr. MORTON showed a specimen he had removed that day from the lip of a man who worked in leather. Four days before he had noticed a pimple on

his lip, which developed into a pustule the size of a sixpence. There was a dark scab on the surface, and around were small vesicles full of sero-pus. There were no constitutional symptoms. Dr. D. S. Davies, who had seen the case before Mr. Morton, had found anthrax bacilli, and Mr. Morton did not think the diagnosis could have been made from the appearance of the vesicle, though in another case which he had seen it was easy.—Dr. FISHER thought Mr. Morton's case, from his description, presented a typical appearance, and remarked that the œdema, from which it got its name of malignant œdema, was largely dependent on the site, certain spots offering greater facilities for presenting that symptom. He had not heard before of a case in this country in which infection was brought about by direct communication with a diseased animal, it generally coming from hides or wool. —Mr. PAUL BUSH said he reported a few years ago a case in which infection was conveyed directly from the animal to man, while certain pigs which had eaten some of the carcase died of anthrax.—Mr. FIRTH referred to the responsibility that is placed upon a surgeon to decide whether he should operate in a case when no bacilli are found bacteriologically. This had happened to him in two suspected cases, and in both cases he operated, one patient recovering, though in both constitutional symptoms were well marked. He admitted they might neither have been cases of anthrax.—Mr. ROGER WILLIAMS said that during twenty years' hospital experience he had only seen one case of anthrax, and that was at the Bristol Royal Infirmary; and Mr. Dowson operated, recognising the disease immediately. He thought from the number of cases mentioned that it must be fairly common about Bristol.—Mr. MUNRO SMITH, in reply, said no certainty existed in his case till a tube was inoculated, and that the veterinary surgeon, who made no microscopic examination, said it was not anthrax.

Dr. J. O. SYMES read a paper on non-bacillary croup. (Reported on p. 25.)—Dr. THEODORE FISHER referred to some cases recorded by Goodall, and remarked on the clinical similarity of these cases to those of true diphtheria.—The PRESIDENT put the matter the other way, and said it was evident that a form of diphtheria existed of which the Klebs-Löffler bacillus was not the cause.

Dr. BERTRAM ROGERS showed a specimen of sarcomatous growth in the heart removed from a boy, aged 4, who had died at the Children's Hospital. He was admitted in a very collapsed condition, and on examination an enlarged heart, double mitral murmurs, and a small tumour on the fifth right rib were found. The boy contracted diphtheria, which had broken out in the ward, and after 4,500 units of antitoxic serum had been administered he recovered. He died with obscure cerebral symptoms. Optic neuritis was observed before death. At the *post mortem* new growths were found on the ribs, in the kidneys, pancreas, spleen, intestine, root of the left lung, and in the brain. The lower part of the left ventricle was almost entirely replaced by sarcomatous tissue, the heart being much enlarged and displaced.—Mr. ROGER WILLIAMS thought the primary growth must have been on the rib. Secondary sarcomatous growths in the heart were very rare and primary ones even more so. Sarcoma was particularly malignant in children.—Dr. P. WATSON WILLIAMS referred to the importance of examining nasal discharges in children, as he believed diphtheria was often spread by this means.—Dr. THEODORE FISHER referred to certain pericardial growths.

Mr. C. MORTON read a paper on a case of cœliotomy for intestinal obstruction due to a persistent Meckel's diverticulum. The patient was a girl, aged 9 years, who, after five days of vomiting and head-

ache, complained of abdominal pain. When seen by him on the seventh day of illness three coils of distended intestine were visible, but there was no rigidity of the abdomen. The condition suggested appendicitis, and on opening the abdomen some serous fluid escaped, and the small intestine was found distended in parts and collapsed in others. On examination it was found that Meckel's diverticulum, which passed to the umbilicus, had caused strangulation, the small intestine passing below it. The diverticulum was excised. There was a marked groove on the bowel where it had been caught. He inserted a drainage tube, and the patient made a good recovery.—Dr. JAMES SWAIN mentioned a case he had seen recently to illustrate the way in which the intestine is sometimes distended below a complete obstruction. The patient was a woman, aged 42, with acute intestinal obstruction. As he commenced the operation the patient began to vomit, and he had to rapidly complete the operation by bringing a piece of distended bowel to the surface and transfixing the mesentery with a rod. The patient died, and at the *post mortem* a diverticulum three inches long was found, which had been so distended with fæcal matter that it was unable to empty itself, and had so kinked the intestine. The piece of bowel exposed was below the obstruction, and yet was distended.—Mr. ROGER WILLIAMS asked what was the "usual position"—an expression used by the author—of the diverticulum.—Mr. PAUL BUSH asked why Mr. Morton drained.—The PRESIDENT asked what relation did the gut bear to the diverticulum?—Mr. MORTON said that the usual place for the diverticulum was from one to four feet from the ileo-cæcal valve; its position varied between these points. In his case he could not say where it was. He always drained when the gut had been sutured, and had reason to be thankful he had done so on more than one occasion. To the President he replied that he could not speak with confidence: the strangulation was beneath the diverticulum.

January 10th, 1900.

Mr. W. H. HARSANT, President, in the Chair.

The minutes of the previous meeting were read and confirmed. Mr. Newman Neild, M.B., B.Ch. Vict., was elected a member.

Dr. G. PARKER showed a specimen of aneurysm of the transverse portion of the aorta. The patient was a police inspector, aged 40, and he had been under observation for three years or more. He dated his troubles from an attack of influenza; but at no time were his symptoms characteristic of aneurysm. He had some inspiratory dyspnœa, and the left vocal cord became paralysed; there were no tubercle bacilli in the sputum. Later on in the disease the left radial pulse became almost obliterated, and there was dulness in the second and third left intercostal spaces, with some pulsation in the first three. Before death, on December 10th, the dyspnœa diminished. At the autopsy the aneurysm shown was discovered pressing on the left bronchus; it was when fresh the size of two fists, and contained some laminated clot. There was slight atheroma of the aorta. One rib cartilage was much eroded. The "posticus" muscle of the left side was degenerated. The other organs were healthy.—Dr. P. WATSON WILLIAMS asked whether the aneurysm pressed on the vagus or recurrent laryngeal. When he examined the patient about three years ago he found abductor paresis and some downward displacement of the heart.—Dr. T. FISHER enquired if there were any signs of venous congestion to distinguish it from a case of mediastinal growth; also was there

any tracheal tugging?—Mr. FIRTH asked if flattening of the trachea was present when the specimen was fresh.—Dr. G. PARKER, in reply, said he was able to answer all the questions in the negative, except Dr. Williams', to which he could not reply.

Dr. T. FISHER showed a specimen of hemorrhage into the intestine of a child. The hemorrhage was beneath the mucous membrane, and extended from the hepatic flexure to the transverse colon. There was no thrombosis of any vessel. In microscopic sections of the liver he had found small thrombi in the portal vein, but these he thought were secondary. Dr. Stack took the patient in twice to the Infirmary. On the first occasion he was put in a surgical ward, as it was thought at first that the great distension of the abdomen was due to obstruction. He was, however, soon moved to a medical ward, and as he got better he was discharged. No definite diagnosis was made, and there was no hemorrhage from the bowel. He came in again two months later, having been ill acutely for one day. He was then very ill and had a "peritoneal" aspect, suffering from constant and excessive attacks of great abdominal pain. After three days he died. Dr. Fisher also showed a specimen of congenital dilatation of the colon from a child six months old; an ulcer in a portion of a strangulated small intestine, not unlike a typhoid ulcer; also a large spleen and liver; and a heart showing fibroid disease.—Mr. MUNRO SMITH and Dr. MICHELL CLARKE thought the large liver and spleen were due to syphilis; the latter had seen two cases of hemorrhage into the intestine like that shown.—Dr. FISHER did not agree with Mr. Smith or Dr. Clarke: the syphilitic theory did not explain the enlarged spleen.

The PRESIDENT showed a large fibroid tumour he had enucleated. A clamp had to be applied to arrest the hemorrhage.

Dr. AUST LAWRENCE read a paper on the treatment of urethral caruncle. (Reported on p. 23.)—Dr. W. C. SWAYNE agreed that recurrence was rare if the removal was complete. Some cases simulated malignant disease, and he mentioned a case in which the sections of the caruncle looked exactly like epithelioma. Though the operation was done some years ago, the patient is quite well.—Dr. NEWNHAM related a case in which the patient suffered great pain on coitus; he removed the caruncle, and the symptoms were relieved.—Mr. J. EWENS advocated total removal of the growth.—Dr. STACK asked whether Dr. Lawrence recognised any difference between the red and blue varieties of the growth, the red ones, in his experience, being more sensitive and more likely to recur.—The PRESIDENT remarked that partial removal often leads to hemorrhage. He narrated a case in which this occurred several days after operation, the hemorrhage being stopped by complete removal.—Dr. LAWRENCE, in reply, advocated complete removal, especially with the blue ones, which he thought were nearly allied to a varicose condition.

Dr. W. C. SWAYNE read some notes on a case of symphysiotomy. This was his second case; unfortunately, the child died. The patient was a woman aged 45, and a primipara, having been married six years. She was 5 ft. 1 in. in height, and did not appear to be abnormally small. Soon after labour commenced the membranes ruptured. The following measurements were taken:—Between anterior sup. spines of ilium, $9\frac{1}{2}$ inches; between most distant parts of iliac crests, $10\frac{1}{2}$; ext. conj., $7\frac{1}{4}$; diag. conj. $3\frac{1}{2}$; int. conj., estimated $2\frac{3}{4}$. At 10.30 he operated, but the symphysis did not separate well, the shape of the joint necessitating section from both above and below. On the section being completed there was considerable

hemorrhage, which required plugging, and as the os was not fully dilated, he put in a de Ribes' bag. After some time he was able to apply axis-traction forceps; but in delivering the head the cervix and perineum were lacerated. The child did not breathe in spite of all efforts, though the heart was beating at the time of birth. The wound was dressed and the patient returned to bed. On the second day she tore off all her dressings, which performance she repeated on the fifth day; and as the wound in consequence became septic, the stitches were removed. Staphylococci were grown from the scrapings from the skin. She then developed pneumonia, probably septic in character, and on recovering from this she had one small rise of temperature before she went home convalescent, with only a slight uterine displacement.—Mr. BUSH said that he was present, and was surprised at the very little amount of separation of the bones. He thought valuable time might have been saved if Dr. Swayne had used the big bone forceps.—Dr. LAWRENCE spoke of the many difficulties in the case, and thought that possibly the absence of separation might have been due to some old disease in the sacro-iliac joint. He did not recommend the use of bone forceps suggested by Mr. Bush, for as a rule there was only cartilage to cut. Had the woman been seen earlier, labour might have been induced.—Dr. J. G. SWAYNE said that want of success formerly was due to ignorance of antiseptic treatment. He thought the death of the child was due to the want of separation of the bones. —Dr. W. C. SWAYNE, in reply, said he was tempted to use the bone forceps, but he did not wish to open the cancellous bone. The difficulty in section arose from the fact that the union instead of being straight was of an obtuse-angled **V**-shape, the upper and lower parts sloping towards the left.

B. M. H. ROGERS, *Reporter.*
J. PAUL BUSH, *Hon. Secretary.*

February 14th, 1900.

Mr. W. H. HARSANT, President, in the Chair.

The minutes of the last meeting were read and confirmed. Dr. G. H. Barker and Mr. E. W. H. Groves were elected members of the Society.

Mr. T. CARWARDINE showed the following specimens:—(1) A "loose body" he had removed from the knee of a man 32 years of age. The patient, during the six months previous to operation, had had recurring attacks of synovitis, and had detected the loose body himself in that time. Mr. Carwardine, in defiance of the rule against the practice, had in this case opened the joint without immediately before feeling the "loose body." The "body" was a piece of cartilage with a spicule of bone attached on one side. It had obviously been detached from the internal condyle, for a recess was found in that condyle of corresponding size. A case of Lane's was alluded to, in which similar bodies, though of pure cartilage, had been removed from each knee of a patient, and in that case symmetrical punched-out cavities had been seen, showing where the separation had taken place. (2) A "loose cartilage" removed from the knee. The patient, a man weighing seventeen stone, had suffered repeatedly from severe attacks of synovitis during the eight months preceding the operation. The loose cartilage was, as usual, the inner one. Complete recovery had followed its removal. (3) An ivory exostosis removed from the left nasal fossa. The growth had been detached from its connections in the nasal fossa with a narrow saw passed through the left nostril. For its removal it was necessary

to reflect up the nose and upper lip by Rouge's method, and chisel off a portion of the margin of the anterior nares. The weight of the specimen was 560 grains.—Dr. WATSON WILLIAMS remarked that such nasal growths as that described, like naso-pharyngeal polypi, occurred in young males especially. They had no tendency to disappear spontaneously. The case illustrated how misleading rhinoscopic appearances might be, for only the anterior end of the growth could be seen, and no indication was given of the large size of the growth. Similar optical illusions were sometimes produced in laryngoscopical examinations. The nature of enchondromata and bony growths was revealed by the probe. They were not likely to recur after removal.

Dr. E. C. WILLIAMS showed a case of the Mongolian type of imbecile. He remarked that the case was a fairly typical one of its kind. The term "Mongolian" had been first used by Langdon Down in his classification of idiots on an ethnological basis. The child was five years old. As an infant he had had snuffles and sores on the buttocks. He did not learn to sit up until he was three years old, and now at five could only just stand. The head was remarkably brachycephalic, appearing as if it had been compressed antero-posteriorly. The palpebral fissures were somewhat oblique, and the eyelids drooped. The tongue protruded slightly. The skin was soft, the hair not coarse. There was a mitral systolic heart murmur. The fingers were rather thick, but tapered at the tips. The index and little fingers seemed dwarfed as compared with the others. The child almost constantly smiled, and made grimaces. The distinctive characteristics of the Mongolian idiot and the Cretin were pointed out. The active movements of the limbs and face in the Mongol contrasted with the lethargic demeanour of the Cretin. In the latter also there were no characteristic skull changes, the relative size of the fingers was normal, the thyroid gland absent, the hair coarse and scanty, and there were fatty deposits in the neck. Thyroid extract was of great benefit to the Cretin, but in the Mongol had no effect. Dr. Wilmarth (*Alienist and Neurologist*, October, 1890) had given an account of five autopsies on Mongolian idiots, and had found the brain of fair size for imbeciles, the pons and medulla only being specially small. The cerebral vessels were thinner than natural, and there was evidence of old arteritis in some places. The majority of Mongols fell victims to the various diseases of childhood.—Dr. G. PARKER also showed an imbecile of the same type. The child, aged three and a half, had been very weak at first, and for a long time after birth was unable to raise the head or sit up; but now had improved, and was of normal size and weight. Nystagmus was present. It was remarked that reports upon the efficacy of the thyroid treatment of cases of this type were very contradictory, some stating this treatment was absolutely useless, others that it was of considerable use if given early enough. His own case had been treated in that way, having taken grs. v. of thyroid extract twice a day. There had been much improvement, possibly due to the extract. He thought that the dwarfs of mediæval history described as having agreeable characters were of the Mongolian type, and they were of quite a different class to the spiteful dwarfs. The type seemed a very definite one. They usually died in early life from lung trouble.—Mr. MUNRO SMITH asked if these dwarfs lived to twenty-one and over. He also wished to know what dwarfs Dr. Parker had referred to as being described in history. Those described in the *Morte d'Arthur* were highly intelligent.

Dr. SHINGLETON SMITH described a case of bronchiectasis, in which the lung had been explored in search of pus. The patient, a

woman 26 years of age, had been admitted to the Royal Infirmary in July, 1899. Seven weeks before she had been confined to bed a few days, suffering from inflammation of the right lung. Since then she had continued to expectorate very freely. She was fairly nourished, though she had lost sixteen pounds in weight in four months. The copious bronchorrhœa was increased by turning upon the left side, The secretion then ran into her mouth, and its expulsion was like vomiting. Over an area of three or four inches diameter at the right base posteriorly, there were heard cavernous breathing, pectoriloquy, and mucous rales, but no tympanitic resonance. The finger ends were clubbed. The sputum was greenish-yellow and fairly tenacious. It contained no elastic fibres, nor tubercle bacilli. In August the area in which there was cavernous breathing had increased. She expectorated as much as half a pint at one cough sometimes, and again shortly after as much as eight ounces at once. On November 8th, as the patient was losing ground, an attempt was made by Mr. Harsant to discover and drain a cavity in the lung. A flap was reflected exposing the ninth rib, and two inches of that bone removed. Then the pleura, which was not adherent to the lung, was incised. Air rushed in freely. The lung was brought up, sutured to the chest wall, and repeatedly explored with the aspirator. No cavity or pus could be found, and the flap was replaced. The operation had no effect one way or the other on the progress of the case. The patient steadily declined, and died on January 15th. The *post-mortem* examination showed the absence of any tubercular disease. The lower lobe of the right lung showed several very large dilated bronchial tubes, with much inter-tubular fibroid tissue. The left lung showed similar changes in a less degree. Dr. Smith remarked that he had only once known a gangrenous lung-cavity become obliterated, or almost obliterated, and recovery ensue. The dilated tubes, in the case recorded, gave the same physical signs as those given by cavities amenable to surgical relief.—Mr. HARSANT, commenting on the case, said that the signs of a cavity had been very marked. It seemed as if there were a superficial cavity, yet no pus was removed nor cavity found.—Dr. WATSON WILLIAMS said he had seen the case, and agreed as to the signs, but had not felt that he could diagnose the existence of a cavity with any certainty. He drew attention to the frequency with which practitioners cease to treat and to regard as worth attention, cases recovering from bronchitis, and yet not infrequently such cases caused serious bronchial trouble in later life. He alluded to the way in which gonorrhœa had formerly been regarded as quite done with when the discharge ceased. Now more serious views were taken of the affection.—Dr. J. O. SYMES remembered examining the sputum in the case described, and that he had found a preponderance of streptococci and leptothrix forms. Such forms might be taken as pointing to the origin of the secretion in dilated tubes.—Dr. MICHELL CLARKE alluded to the important practical point that if you have consolidation and signs of a cavity at the base of a lung, and no signs elsewhere in the lungs, the disease was not tubercular. Exceptionally there might be a cavity at the base, with slight signs at one apex, in tubercular disease, but it was the rarest thing to meet with tubercular disease limited to the base of the lung.—Dr. SHINGLETON SMITH, in replying, said that he knew of several cases in which dilated tubes at the bases had given signs of cavity, and in which attempts to drain had failed. He agreed with Dr. Clarke as to the cavities at the base not being tubercular unless there were signs of the disease elsewhere.

Mr. W. ROGER WILLIAMS read a paper on "The Pathogenesis of

Myoma of the Uterus." He alluded to the two distinct view held by different authorities upon the pathogenesis of tumours. According to one view they resulted from modifications in formative processes, according to the other they were modifications of inflammatory processes. The causes were therefore intrinsic according to the first view, or extrinsic according to the other. He himself believed in the intrinsic origin of tumours, and would endeavour to show his reason. Numerous observations were quoted showing that fibro-myomata were associated with other abnormalities of the reproductive organs. Their association with *uterus duplex* and *unicornis*, and with vaginal deformities was alluded to. Also that with ovarian cysts. It had been estimated that 18 % of ovarian cysts were concurrent with fibro-myomatous disease of the uterus. There were many examples of the co-existence of these tumours in the uterus, ovaries, and even in the vagina. Fibro-myomata were also associated with less obvious abnormalities. Hidden abnormalities had been found in association with these tumours whenever specially looked for. Cohnheim, Paget and others had previously noted the development of tumours at the seat of abnormal development, *e.g.*, in moles. Researches seemed to show that fibro-myomata sprang from muscular remnants of the Wolffian and Müllerian ducts. In fibroids there had been found collections of cells, and structures not unlike utricular glands, even with ciliated cells. They were believed to be Wolffian or Müllerian remnants, but they might be secluded sequestra of the uterine mucosa. Probably similar conditions might arise in post-embryonic life. During pregnancy there was a tendency to ingrowth and sequestration. Bacteria had been found in fibroids. The proneness to fibrification and calcification was due to the sequestration of germs likely to degenerate in this way.—Dr. AUST LAWRENCE said he thought that one-third of his ovarian cases had been associated with fibroids of the uterus. He had seen the removal of one cyst cause the diminution in size of an associated fibroid. He mentioned a case of sloughing fibroid of the vagina he had seen, in which there were also uterine fibroids present.—Dr. WALTER SWAYNE thought that inflammatory processes had much to do with the production of tumours. He alluded to a patient he had attended for eight years suffering with endometritis. At the end of that time she developed a fibroma in the vagina. This he had removed, opening up the utero-vesical pouch. In this case, perhaps, inflammation had caused the growth of developmental relics. He believed enlarged prostate was the result of irritation, and the analgous enlargement of the uterus from fibroids might be due to irritation.—Mr. ROGER WILLIAMS, in reply, reiterated his view that extrinsic causes were not primarily or chiefly concerned with the origin of tumours, any more than they were with the development of a tooth or hair.

J. LACY FIRTH, *Reporter.*
J. PAUL BUSH, *Hon. Sec.*

Plymouth Medical Society.

October 7th, 1899.

Mr. M. H. BULTEEL, President, in the Chair.

The following office-bearers were elected for the following year :—
President and Hon. Treasurer : Mr. J. E. SQUARE.
Hon. Librarian : Mr. C. E. RUSSEL RENDLE.
Hon. Secretary : Mr. W. L. WOOLLCOMBE.

The Hon. Treasurer's Report showed a balance of £33 10s., as against £11 10s. at last Annual Meeting.

A communication from the Medical Guild of Manchester *re* a proposed Medical Conference was referred to the Ethical Committee.

After the meeting twenty-five members and guests dined together.

October 28th, 1899.

Mr. J. E. SQUARE, President, in the Chair.

Mr. S. G. Vinter, Staff-Surgeon W. M. Craig, R.N., and Mr. T. Noy Leah were elected members.

Dr. L. E. Fox showed a man, æt. 60, who had fallen and fractured the base of his skull, and subsequently developed a peculiar gait and speech.—Mr. G. F. ALDOUS demonstrated a phonographic reproduction of the man's voice.

Mr. W. L. WOOLLCOMBE showed a man, æt. 35, whose left upper jaw he had removed in August last by Fergusson's method, after a preliminary tracheotomy. He was now wearing a vulcanite plate with teeth, and his speech was almost natural; there was no dropping of eye or deformity of face.

Mr. C. E. RUSSEL RENDLE showed a man, æt 25, who fell from a second-story window five months ago, and cut his eyebrow, but did not lose consciousness. The right eye was closed for three weeks by swelling of the lids; when the swelling subsided there was very little sight, and even that has gradually gone. Now right eye barely p.l. Left eye, V = $\frac{6}{9}$. The right optic disc is atrophied, and there is a small retinal hemorrhage in the left eye.—Mr. ROLSTON pointed out that the case was similar to a number described by S. Snell, in which the lesion was proved to be between the optic commissure and the entrance of the retinal vessels to the optic nerve.

The Ethical Committee reported that after a detailed consideration of the circular presented by the Manchester Medical Guild *re* proposed Medical Conference, they had adopted the following resolution: "That this Sub-committee approves the objects of the proposed Conference, and recommends the Plymouth Medical Society to co-operate as far as possible."—The Report was received and adopted.

Dr. H. WEBBER showed a portion of intestine (ileum), two feet long, with mesentery all becoming gangrenous from thrombosis of mesenteric vessels. The specimen was from a man, æt 48, who died on fifth day of symptoms which were those of a gradually increasing obstruction. The abdomen was opened on fourth day, and a loop of bowel drawn out and opened.—Mr. WOOLLCOMBE thought drainage no good in these cases, and that excision of the whole thrombosed area gave the only chance of recovery if obstruction once became marked.

Mr. F. E. RAW read notes on a case of ovariotomy in which a very large cyst was removed, with considerable hemorrhage from adhesions, and in which the resulting collapse was arrested by saline injections into veins and peritoneal cavity.

Mr. WOOLLCOMBE showed a cyst of the paroöphoron removed from a woman, æt. 32, who had a large multilocular ovarian cyst, holding about six pints, in connection with the right ovary, and the specimen with the left. The specimen showed well how the cyst had distended the meso-salpinx and stretched the Fallopian tube, pushing the vertical tubes of the parovarium to the uterine side, and leaving the ovary proper attached to its lower and inner side unaltered. On the interior

of the cyst-wall was a small cluster of warts characteristic of these cysts.

Mr. HAMILTON showed a cast of the uterus believed to be the product of conception.

November 15th, 1899.

Mr. J. E. SQUARE, President, in the Chair.

Mr. G. JACKSON was nominated as a delegate from the Society to attend the proposed Medical Conference.

Mr. R. H. LUCY opened a discussion on "Abdominal Pain: its Varieties, and their Value as Diagnostic Aids." The discussion was carried on by several members.

December 2nd, 1899.

Mr. J. E. SQUARE, President, in the Chair.

Mr. C. H. WHITEFORD showed a boy, æt. 7 years, who, twelve months ago, developed a Hunterian chancre on the left upper eyelid. He subsequently developed mucous tubercles; but under treatment the sore healed, and no other symptoms developed.

Dr. L. E. FOX read notes of (i) A Case of Congenital Cerebellar Ataxy; (ii) A Case of Pseudo-Hypertrophic Paralysis.

Mr. J. R. ROLSTON showed a man who, four months ago, fell out of a waggon, struck his head, and subsequently developed paralysis of the left sixth nerve.

Mr. C. H. WHITEFORD showed (i.) A metal horseshoe designed to pass through an opening in the mesentery and support the gut after enterostomy, instead of using a straight rod, which is apt to cause trouble from lying against the iliac crest. (ii.) An automatic wound retractor, in which the retraction was made by means of a suture in either edge of the wound, drawn on by a guy-rope which was passed beneath the table.

Dr. FOX showed a specimen of a tumour of the pons, and read notes of the case.

WALTER L. WOOLLCOMBE, *Hon. Sec.*

The Library of the Bristol Medico-Chirurgical Society.

The following donations have been received since the publication of the List in December:

February 28th, 1900.

L. M. Griffiths (1) ... ... 1 volume.
Manchester Medical Society (2) ... ... 4 volumes.
Mason University College (3) ... ... 2 ,,

Pathological Society of London (4) ... ... 1 volume.
Victor G. Plarr (5) ... ... 1 ,,
Royal Academy of Medicine in Ireland (6) ... 1 ,,
J. Taylor ... ... 1 ,,

Unbound periodicals have been received from the Manchester Medical Society.

THIRTY-FIFTH LIST OF BOOKS.

The titles of books mentioned in previous lists are not repeated.

The figures in brackets refer to the figures after the names of the donors, and show by whom the volumes were presented. The books to which no such figures are attached have either been bought from the Library Fund or received through the *Journal*.

Adami and C. F. Martin, J. G. *Report on Observations made upon the Cattle at the Experimental Station at Outremont, P.Q.* 1899
Ailbutt, T. C. [Ed.] *A System of Medicine.* Vol. VIII. 1899
Barwise, S. ... *Practical Hints on the Analysis of Water and Sewage* ... 1899
Bell, A. E. ... ... *The Pasteurisation and Sterilisation of Milk* 1899
Broadbent, Sir W. H. and J. F. H. *Heart Disease* ... ... 3rd Ed. 1900
Bruce, J. M. ... *The Principles of Treatment* 1899
Burghard, W. W. Cheyne and F. F. *A Manual of Surgical Treatment.* Part II. 1899
Catalogue of the Library of the Ophthalmological Society of the United Kingdom ... ... 3rd Ed. 1899
Cheyne and F. F. Burghard, W. W. *A Manual of Surgical Treatment.* Part II. 1899
Davis, A. E. ... *The Refraction of the Eye* 1900
Foster, M. ... ... *Claude Bernard* 1899
Foxwell, A. ... *The Causation of Functional Heart Murmurs* 1899
Griffiths, W. H. *Lessons on Prescriptions and Prescribing* [3rd Ed.] 1899
Hall and J. A. Menzies, I. W. *Golden Rules of Physiology* ... ... [1900]
Harding, W. .. *Mental Nursing* 1899
Hill, L. ... ... *Manual of Human Physiology* 1899
Hime, M. C. ... *Schoolboys' Special Immorality* ... ... 2nd Ed. 1899
Hinshelwood, J. *Letter-, Word- and Mind-Blindness* 1900
Jardine, R. ... *Lectures on Hæmorrhage and Eclampsia* 1899
,, ... *Text-Book of Midwifery* 1899
Lawrie, J. M. ... *Fifty Consecutive Cœliotomies* 1899
Lehfeldt, R. A. ... *A Text-Book of Physical Chemistry* ... ... [1899]
Leser, E. ... ... *Operations-vademecum* 1900
Linn, T. ... ... *The Health-Resorts of Europe* 1899
Luff and F. J. M. Page, A. P. *A Manual of Chemistry* ... [2nd Ed.] 1900
M'Kendrick, J. G. *Hermann Ludwig Ferdinand von Helmholtz* 1899
Martin, J. G. Adami and C. F. *Report on Observations made upon the Cattle at the Experimental Station at Outremont, P.Q.* 1899
Menzies, I. W. Hall and J. A. *Golden Rules of Physiology* ... ... [1900]
Merck's Manual of the Materia Medica 1899
Moure, E. J. ... *Traitement des Tumeurs malignes des Fosses nasales* ... 1899

Murrell, W. ... *Aids to Materia Medica.* 3 parts. 1898–1900
Norris and C. A. Oliver. W. F. [Eds.] *System of Diseases of the Eye.* Vol. IV. 1900
Oliver, W. F. Norris and C. A. [Eds.] *System of Diseases of the Eye.* Vol. IV. 1900
Page, A. P. Luff and F. J. M. *A Manual of Chemistry* ... [2nd Ed.] 1900
Plarr, V. G. ... *List of Lecturers and Lectures at the Royal College of Surgeons of England, 1810—1900* ... ... (5) 1900
Power, D'A. ... *How Surgery became a Profession in London* 1899
Pye, [W.] ... ... *Surgical Handicraft.* 4th Ed. (Ed. by B. M. H. Rogers) 1900
Richardson, Sir B. W. *Vita Medica* 1897
Shuttleworth, G. E. *Mentally-Deficient Children* ... ... 2nd Ed. 1900
Stonham, C. ... *A Manual of Surgery.* Vol. III. 1899
Wilson, G. R. ... *Vice and Insanity* 1899
Yearsley, M. ... *Nursing in Diseases of the Throat, Nose, and Ear* ... 1899

TRANSACTIONS, REPORTS, JOURNALS, &c.

American Journal of Medical Sciences, The ... ... Vol. CXVIII. 1899
American Ophthalmological Society, Transactions of the Vol. VIII., Part 3 1899
American Surgical Association, Transactions of the ... Vol. XVII. 1899
Annual and Analytical Cyclopædia of Practical Medicine ... Vol. IV. 1899
Archives de Neurologie ... ... 2e Sér., Tomes VII., VIII. 1899
Archivio di Ortopedia ... ... Vols. XIV., XV. 1897–98
Association of American Physicians, Transactions of the Vol. XIV. 1899
Birmingham Medical Review, The ... ... Vols. XLV., XLVI. 1899
Bristol Health Report, 1898 ... ... (1) 1899
British Almanac, The 1900
British Medical Journal, The .. .. Vol. II. for 1899
Buffalo Medical Journal ... ... Vol. XXXVIII. 1899
Bulletin de l'Institut international de Bibliographie 1898
Centralblatt für Chirurgie 1899
Cincinnati Lancet-Clinic, The ... ... Vol. LXXXII. 1899
Clinical Journal, The ... ... Vols. XII.—XIV. 1898–99
Clinical Society's Transactions ... ... Vol. XXXII. 1899
Deutsche medicinische Wochenschrift ... ... (2) 1888
Dublin Journal of Medical Science, The ... ... Vol. CVIII. 1899
Edinburgh Medical Journal, The ... ... N.S., Vol. VI. 1899
Edinburgh Obstetrical Transactions ... ... Vols. XI.—XVIII. 1886-93
Gazette des Hôpitaux 1898
Glasgow Medical Journal, The ... ... Vols. (2) IX., 1877; LII. 1899
Hazell's Annual 1900
Hospital, The ... ... Vol. XXVI. 1899
Hospitals—
Glasgow Hospital Reports ... ... Vol. II. 1900
Saint Bartholomew's Hospital Reports ... ... Vol. XXXV. 1900
Internationale Oogheelkundig Congres Te Utrecht, Verslag der Algemeene Zittingen van het Negende 1899
Iowa State Medical Society, Transactions of the ... ... Vol. XVII. 1899
Jahresbericht über die Leistungen und Fortschritte in der Gesammten Medicin ... ... (2) 1886, Bd. II. 1887

Jenner Institute of Preventive Medicine, Transactions of the 2nd Ser. 1899
Journal of Laryngology, Rhinology, and Otology ... ... Vol. XIV. 1899
Journal of the American Medical Association, The ... Vol. XXXIII. 1899
Journal of the Boston Society of Medical Sciences ... ... Vol. III. 1898-99
Lancet, The ... ... Vol. II. for 1899
Laryngological Society of London, Proceedings of the ... ... Vol. VI. 1899
London Medical and Surgical Journal, The... ... ... (3) Vol. VIII. 1836
Medical Chronicle, The ... ... 3rd Ser., Vol. I. 1899
Medical Directory, The 1900
Medical News, The ... ... Vol. LXXV. 1899
Medical Press and Circular, The ... ... [Vol. CXIX.] 1899
Medical Record ... ... Vol. LVI. 1899
Medical Review, The ... ... Vol. II. 1899
New Hampshire Medical Society, Transactions of the 1899
Newspaper Press Directory 1900
New York Medical Journal, The ... ... Vol. LXX. 1899
New York, Transactions of the Medical Society of the State of ... (2) 1865
Odontological Society of London, Transactions of the ... Vol. XXXI. 1899
Ophthalmological Society of the United Kingdom, Transactions of the Vol. XIX. 1899
Pathological Society of London, Transactions of the ... (4) Vol. L. 1899
Philadelphia Medical Journal, The ... ... Vol. IV. 1899
Practitioner, The ... ... Vol. LXIII. 1899
Public Health ... ... Vol. XI. 1898-99
Quarterly Medical Journal, The ... ... Vol. VII. 1898-99
Retrospect of Medicine, Braithwaite's ... ... Vol. CXX. 1900
Revue hebdomadaire de Laryngologie [etc.] ... ... Tome XIX. 1899
Royal Academy of Medicine in Ireland, Transactions of the (6) Vol. XVII. 1899
Sanitary Record, The ... ... Vol. XXIV. 1899
Scottish Medical and Surgical Journal, The ... ... Vol. V. 1899
Smithsonian Institution, Annual Report of the, for 1896, 1897 1898
University Medical Magazine ... ... Vol. XI. 1899
West London Medical Journal ... ... Vol. IV. 1899
Whitaker's Almanack 1900
Who's Who 1900
Year-Book of Scientific and Learned Societies ... ... (3) 1885.

Local Medical Notes.

BRISTOL.

"JOURNAL" COMMITTEE.—Our readers will have observed some changes on our title page. The Assistant Editor, Mr. L. M. Griffiths, after 17 years of unremitting devotion to the *Journal*, has resigned his office, and the Committee of the Society have reluctantly accepted his resignation. Some steps have been taken to convey to Mr. Griffiths, in a substantial and suitable form, an expression of the

widely-spread gratitude which a large proportion of the members of the Society and the readers of the *Journal* feel to Mr. Griffiths for his great services to the profession for many years. Further details of this will shortly be announced: meanwhile, the Editor, who is Treasurer of the Fund, will be glad to receive any further contributions.

Mr. W. H. Harsant, a member of the Journal Committee for nearly ten years, has also retired, and the Committee has conveyed to Mr. Harsant their thanks for his extremely valuable services during the long period of his connection with the *Journal*.

Dr. Bertram M. H. Rogers has also resigned his position on the Journal Committee, and in accepting his resignation the Committee desire to express their cordial appreciation of the large amount of necessary and valuable work he has done during a period of five years.

New appointments have been made by the Committee of the Society as follows:—

Dr. P. Watson Williams is to succeed Mr. Griffiths in the office of Assistant Editor, and we have no doubt that his experience in similar work, and his energy in doing it, will be of great service to the *Journal*.

The other vacancy on the Committee has been filled by the appointment of Dr. J. Lacy Firth, who, as Assistant Surgeon to the Bristol General Hospital, will be able to give the Committee much assistance on surgical questions.

PRINCESS CHRISTIAN HOSPITAL.—The staff of this hospital having been selected so largely from Bristol, and the connection of the donor with this city, gives the subject an especial local interest, and hence we have no hesitation in giving some details on the subject. The donor and his staff are now on their way to the destination which may be allotted them by the War Office, and we trust that this hospital is destined to be of great service to our soldiers in South Africa.

The "Princess Christian Hospital" has been presented to the Government by Mr. Alfred Mosely, of West Lodge, Hadley Wood, Middlesex. This munificent gift has been entirely equipped and will be supported by the generous donor, who accompanies it to the Cape, and whose knowledge of the country and climate, gained through twenty-five years' connection with South Africa, will prove of considerable value to the efficient working of the hospital. No trouble or expense has been spared to make the hospital in every way worthy of the patronage of Her Royal Highness Princess Christian, who has graciously consented for it to bear her name.

Major H. B. Mathias, D.S.O., R.A.M. Corps. who is a brother of the gallant Colonel H. H. Mathias, V.C., etc., of Dargai fame, goes out as Government Representative with the hospital.

The civil staff will consist of the following:—

Chief Surgeon.—J. Paul Bush, M.R.C.S. Eng., Surgeon to the Bristol Royal Infirmary; Lecturer on Operative Surgery, University College, Bristol; Chief Surgeon, Bristol Constabulary.

Medical Officers.—G. V. Worthington, M.A., M.B., B.C. Cantab., M.R.C.S. Eng., late Senior House-Surgeon, St. Bartholomew's Hospital, London; late District Medical and Sanitary Officer, S. Canara, India. E. A. Nathan, M.D., B.S. London, M.R.C.S. Eng., late House-Surgeon and House-Physician, St. Mary's Hospital, London. A. L. Flemming, M.R.C.S. Eng., late Resident Casualty Officer, Bristol Royal Infirmary.

Dressers.—A. B. Cridland, M.R.C.S. Eng., House-Surgeon, Bristol Eye Hospital; late Casualty Officer, Bristol Royal Infirmary. E. M. Pearse, M.R.C.S. Eng., late Casualty Officer, Bristol Royal Infirmary.

Nursing Staff.—Sister E. C. Laurence, of Guy's Hospital, who will be the Sister-in-charge, and Sisters M. Leng, E. Atkins, E. M. Fisher, S. A. Snell, and F. Baker.

There will also be six non-commissioned officers and twenty-six hospital orderlies.

The building will consist of four pavilions, each 130 feet long, and containing 25 beds—100 in all, with surgery, operation room, nurses' room, fitted bath-rooms, washing room for the men, and lavatories attached.

The structure will be of corrugated iron, hung inside with greenish-tinted canvas. The wards will be comfortably furnished with bedsteads fitted with spring mattresses of the newest design, folding washstands, invalid tables and chairs, and every little detail likely to make them more comfortable and home-like. The surgeries and operation room will be fitted with all the latest improvements, including a very complete Röntgen Ray apparatus, with all the latest inventions for localising foreign bodies, etc. The accessories include the new mercurial interrupter for making and breaking the current, and driven by a special motor of its own. This interrupter gives a particularly steady and distinct image with the fluorescent screen, and it also has the advantage of diminishing the length of time-exposure. An expert in this department is included in the list of medical officers.

In addition to the main buildings, there will be three stores for the warehousing of the ample supply of provisions, invalid specialities, stimulants, drugs, etc. There will also be a separate building for the storage of the linen, a laundry, and a very complete kitchen of considerable size. In charge of the culinary department will be a professed cook and assistants. Another large structure will contain a central mess-room, and sleeping accommodation for the doctors, nurses, and other members of the Staff, who will number in all about fifty persons.

The plans and specifications of the hospital were prepared by Mr. Fred. W. Marks, A.R.I.B.A., of 3 Staple Inn, W.C., and the work has been admirably carried out under his superintendence by Messrs. Humphreys, Limited, of Knightsbridge.

PUBLIC HEALTH.—The Barton Regis Rural District Council have made arrangements by which medical men in the district can obtain, free of charge, bacteriological cultures in cases of diphtheria, and have blood examined by Widal's test in suspected cases of enteric fever. Culture outfits are kept at depôts in various parts of the district.

HEALTH REPORT.—Dr. D. S. Davies reports that 9,345 births and 5,840 deaths were registered during 1899. The births correspond to a rate of 29.2 per 1000 persons living, as compared with 28.7 in 1898, and the death-rate was 18.2 per 1000, against 17.2 per 1000 in 1898. The deaths of infants last year numbered 1,473 and were in the proportion of 158 per 1000 births registered, against 164 per 1000 in 1898. The zymotic death-rate was 1.9 per 1000 living, against 2.7 in the previous year. The deaths due to the zymotic diseases were 595, of which 41 were due to measles, 13 to scarlet fever, 33 to diphtheria, 119 to whooping-cough, and 355 to diarrhœa.

Mr. Colston Wintle has been elected vice-chairman of the Health Committee of the Bristol Town Council.

UNIVERSITY COLLEGE, BRISTOL.—Mr. P. G. Stock, M.R.C.S., L.R.C.P., and Mr. F. W. Cotton, M.R.C.S., L.R.C.P., have joined the Royal Army Medical Corps; the former appointment being made by the War Office on the nomination of the Medical Faculty of the University College, Bristol; the latter gained the fifth position in the competitive entrance examination.

ROYAL INFIRMARY.—At a special meeting of the committee, held on November 28th, it was decided to sell sufficient capital stock to provide £8,000 to be applied towards the cost of the Nurses' Home and laundry. The committee of this institution recently offered to make 24 beds available for soldiers of the Gloucestershire Regiment invalided from South Africa and requiring active medical or surgical treatment. The War Office has accepted the proposal.

GENERAL HOSPITAL.—Dr. A. J. Harrison has been re-appointed Honorary Physician. Dr. J. Odery Symes has been appointed Assistant Physician.

ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Mr. H. S. Jenkins has been appointed House Surgeon *vice* Dr. W. Milligan, resigned.

DISPENSARY.—The annual report of the committee has just been issued, and shows that during 1899 there were 10,835 patients treated, who, with 1,165 remaining at the end of 1898, made a total of 12,000. During 1898 there were 10,176 patients treated. The report adds that during the past year medical assistance has been given in 25 difficult midwifery cases; and that the three beds in the Convalescent Home are much appreciated by the patients.

ROYAL VICTORIA JUBILEE CONVALESCENT HOME.—At a meeting of the committee the Society of Merchant Venturers made an application for 12 beds to be reserved for convalescent sick or wounded soldiers returning from South Africa. The expenses in connection with these beds will be defrayed by the Society. Private H. Edmonds, of the 3rd Grenadier Guards, is the first patient to be received.

ROYAL VICTORIA HOMES FOR INEBRIATES.—The Home Secretary, on the application of the Manager, has extended the certificate to the Brentry Inebriate Reformatory for Females to allow of the reception of 40 females over and above the 35 authorised by the original certificate. He has also certified as an inebriate reformatory for males, under the Inebriates Act, 1898, certain lands and buildings situate at Brentry.

At a meeting of the Newport (Mon.) Corporation, held on January 9th, it was decided to contribute £1,000 to the funds of the Royal Victoria Homes, Brentry, in consideration of having seven beds reserved for a period of 25 years.

BATH.

ROYAL UNITED HOSPITAL.—The annual meeting of this institution was held on January 29th, under the presidency of the Mayor. The report stated that 1,287 in-patients had been admitted, and that 8,941 out-patients had been treated, being an increase in each case as compared with 1898. The financial statement showed that the income amounted to £7,421 and the expenditure to £7,768. The report alluded to the services rendered to the hospital by the late Mr. H. Culliford Hopkins, first as house surgeon, and then, since 1876, as registrar and curator of the museum, and added that his name would be handed down as one of the most zealous of workers for the hospital.

EYE INFIRMARY.—The annual meeting of this institution was held on February 16th. The medical report stated that 268 in-patients and 1,749 out-patients had been treated. The financial statement showed that there remained a favourable balance of £31. On the motion of the Rev. B. N. Thompson, it was decided that an honorarium be awarded to Mr. W. Beaumont, the honorary surgeon to the Infirmary.

EASTERN DISPENSARY.—Mr. R. A. Bayliss has been appointed Honorary Medical Officer *vice* Dr. J. M. Harper, resigned.

WESTERN DISPENSARY.—The annual meeting of this institution was held on January 26th. The medical report showed that 932 cases had been treated during 1899. The financial statement showed a favourable balance of £102. On the proposition of the chairman, a resolution was unanimously passed expressing regret at the loss the dispensary had sustained by the death of Mr. H. Culliford Hopkins, who for 28 years had been one of the medical officers, and the committee added that the poor would long remember him as their friend and kind benefactor. Mr. G. E. Bloxham has been appointed Medical Officer *vice* Mr. H. C. Hopkins, deceased.

CARDIFF.

HOME FOR INEBRIATES.—A sub-committee of the Watch Committee has been considering what course should be taken in connection with the Inebriates Act. Dr. Braithwaite from the Home Office met the sub-committee, when the question of erecting a home at Cardiff for 50 inmates (25 males and an equal number of females) was fully discussed. They recommended that 10 acres of land should be purchased, and that a home be erected at a cost of £10,000. The cost of maintenance was estimated at 15s. per patient per week, towards which the government allow half-a-guinea, and it was considered that the annual expenditure would be about £830. The Committee unanimously adopted the report. It is expected that such an institution will be sufficient to accommodate all those who come under the provisions of the Act in South Wales and Monmouthshire.

PUBLIC HEALTH.—Dr. W. G. Savage has been appointed Bacteriologist and Lecturer at the Cardiff and County Public Health Laboratory.

INFIRMARY.—At the meeting of the committee, held on November 8th, 1899, the financial position of the institution was considered. The Chairman of the Finance Committee stated that by the end of the year the adverse balance would be £7,000, and added that they were at present spending £9,000 per annum, whilst the receipts were only £7,000. At a meeting of the committee, held on November 15th, 1899, it was decided that a women's ward should be closed on November 30th. It is estimated that by closing the ward about £1,172 will be saved annually, but it is hoped that increased subscriptions will permit of the re-opening of the ward at an early date.

At a special meeting of the Executive Committee of the Cardiff Infirmary, held on January 19th, the new rules which have been recommended by a sub-committee were considered. It was resolved: "That no member of the honorary medical staff shall hold office after attaining the age of 60 years. No physician, surgeon, ophthalmic surgeon, gynæcologist, or dental surgeon shall hold office for a longer period than 20 years."

SEAMEN'S HOSPITAL.—A very successful bazaar was held in Cardiff recently, in aid of the fund for the new seamen's hospital. At the opening of the bazaar Mr. D. Thomas, M.P., stated that he had received £1,000 from an anonymous donor towards the institution, and added that the King of Italy had sent a very beautiful specimen of mosaic work. The net proceeds of the bazaar realised £4.276.

At a meeting of the committee, held recently, under the presidency of Sir Thomas Morel, it was stated that up to the present £21,279 had been received. A piece of land of the value of £250, which adjoined the proposed site of the hospital, was presented by the Directors of the Taff Vale Railway Company.

HOMES FOR WOUNDED SOLDIERS.—We learn that the authorities of the Porthcawl Rest, near Cardiff, have been approached by the

War Office as to the amount of accommodation which can be set aside for the sick and wounded on their return from Africa. The Cardiff Infirmary has offered 50 beds for the same purpose.

CHELTENHAM.

OBITUARY.—On January 4th, Deputy Surgeon-General David Cullen, A.M.D., passed away peacefully at his residence, Halsey House, Cheltenham, in the sixty-seventh year of his age, after seven weeks' illness. Dr. David Cullen graduated M.D. Edin. and L.R.C.S. Edin. in 1854, and served in the Army Medical Department from 1854 to 1869. He served in the Crimea from 1854 to 1856 and in the Indian Mutiny from 1857 to 1859. Later he was Surgeon-Major to the 71st Highland Light Infantry, and was Registrar to the Royal Victoria Hospital, Netley, from 1875 to 1880, after which he retired on a pension. Dr. Cullen was awarded medals for his services in the Crimea, in Turkey, and in the Indian Mutiny, with clasps for Sebastopol and Lucknow. For the last 18 years Dr. Cullen had lived in Cheltenham.

EXETER.

DEVON QUEEN VICTORIA COMMEMORATION FUND.—At a meeting of the Council of the Fund, held at Exeter on December 1st, 1899, under the presidency of the Earl of Morley, it was stated that about £6,450 had now been raised. The income of this amounts to £270, which will be devoted to various hospitals and infirmaries in the county of Devon.

MALMESBURY.

PUBLIC HEALTH.—At a meeting of the Malmesbury Town Council, held on December 12th, 1899, the water-supply of the town came under discussion. The Medical Officer of Health (Mr. C. W. Pitt), who reported two fatal cases of typhoid fever, stated that the water was deleterious to health, and the county medical officer also said that unless the water was previously boiled it was unsafe for drinking purposes. After a considerable discussion it was decided to approach the company with a view to purchase of the waterworks by the Council.

MERTHYR.

OBITUARY.—We have to record the death on January 20th, at the advanced age of 84 years, of Mr. Thomas Jones Dyke, who had held the position of medical officer of health of the town of Merthyr for over 36 years. He took his L.S.A. in 1837, and his M.R.C.S. in the year following. In 1866 he was elected a Fellow of the Royal College of Surgeons.

PENZANCE.

WEST CORNWALL INFIRMARY AND DISPENSARY.—The annual meeting of this institution was held on January 17th, under the presidency of the Rev. Prebendary Hedgeland. The report stated that during 1899 there were 165 in-patients admitted, against 176 in 1898, and that 2,171 out-patients had been treated, as compared with 1991 in 1898. The financial statement showed that the total receipts amounted to £946, while the expenditure was £898.

PLYMOUTH.

SOUTH DEVON AND EAST CORNWALL HOSPITAL.—The sixtieth annual meeting was held on February 6th, under the presidency of Sir Massey Lopes. The medical report stated that 1,244 in-patients had been admitted during 1899, being a decrease of 69 as compared with the previous year. 2,650 out-patients were attended, an increase

of 314 as compared with 1898. 253 patients were sent to the Pearn Convalescent Home. The financial statement showed that the total expenditure amounted to £6,821, and there was an unfavourable balance of £802, but the balance from the bazaar held in 1898 enabled the committee to clear this deficit. Dr. R. H. Clay and Dr. L. E. Fox have been appointed Physicians. Mr. R. H. Lacy, Mr. C. Whipple, and Mr. W. Woollcombe have been appointed Surgeons. Mr. G. F. Aldous, Mr. C. E. R. Rendle, and Dr. H. W. Webber have been appointed Assistant Surgeons. Dr. F. Bushnell has been appointed Pathologist. Mr. G. R. Brittain has been appointed Surgeon-Dentist. Mr. C. H. Whiteford has been appointed Anæsthetist.

SHEPTON MALLET.

District Hospital.—The annual meeting of this institution was held recently, under the presidency of Sir R. H. Paget. The medical report showed that 132 in-patients had been treated, against 124 in 1898. There were also 116 out-patients and 55 casualties treated, both being in excess of last year. The financial statement showed an increase under all heads, and the balance was satisfactory.

SWINDON.

Victoria Hospital.—The annual meeting of this institution was held recently, under the presidency of Captain F. Goddard. The report showed that 225 patients had been admitted during 1899, and that there remained a favourable balance of £146. The chairman announced that he had given the land, which was said to be worth £300, for the enlargement of the hospital grounds. Captain Goddard had previously also given the site upon which the hospital stands.

TAUNTON.

Taunton and Somerset Hospital.—At the annual meeting of this institution, held recently, the medical report stated that 777 in-patients had been admitted. The financial statement showed that there was a deficit on the year of £1,777, which had arisen partly through exceptional expenditure on the laundry and re-flooring the wards, and also to the fact that the amount received from donations and bequests had fallen off considerably. The fund raised in memory of the late Colonel Chard, V.C., had been increased to £909. It was decided to sell stock of the value of £1,000 to meet the deficiency in the accounts. The Committee decided to offer ten beds for the use of soldiers wounded in South Africa.

TIVERTON.

Infirmary and Dispensary.—The annual meeting of this institution was held recently, under the presidency of Sir John Heathcote-Amory. The report showed that 1,293 patients had been treated. The Victoria wards, opened in August last, were now used by patients.

TORQUAY.

Western Hospital for Consumption.—Mr. J. H. Gough has been appointed Honorary Physician *vice* Dr. J. R. Lombe, appointed Consulting Physician.

TRURO.

Public Health.—The Corporation have adopted the aerobic bacterial oxidising process of the International Purification Syndicate for the treatment of the sewage of the town.

SCRAPS

PICKED UP

BY L. M. G.

From the Seat of War.—An old-fashioned doctor of this neighbourhood when he heard that Lady Smith had been relieved said that he hoped the *primæ viæ* would be kept open

Clinical Records (30).—Mother: "What did you do with that medicine the doctor left for you?" Small Boy: "I heard there was a poor boy ill in the back street, an' I took it round and left it for him."

Zulu Medical Lore.—The Under-Secretary for Native Affairs in Natal, in a lecture on "Zulu Social and Domestic Life," gave some interesting particulars concerning certain prescriptions of the Zulu medicine men:—If you have the mumps, go to an ant-bear's hole, look into it, and call out "zagiga! zagiga!" (let me alone), and if you return home without looking back, the mumps will leave you. If you are deaf, get a monkey's ear, burn it to ashes, mix the ashes with hippopotamus fat and beeswax, drop some of the mixture into your ears, and your hearing will soon be as good as the monkey's.

The New Anatomy.—*Practical Medicine* and *The Student* have collected from the newspapers some instances of the newer (literary) anatomy, from which I quote the following:—The murderers have discovered some astonishing vulnerable parts of the human anatomy of late; a Georgia colonel was shot in the ticket-office, the other day a man was fatally shot through his door, and not long ago another received a fatal wound in his window. A young man meeting his loved one after some interval kissed her passionately upon her reappearance. A mother irritated by the long delay of her son, who had been sent on a message, whipped him upon his return. A young lady seeking an interview with the editor sat down upon her being asked. A poor woman was shot in the oil regions some time ago; and another more recently was accidentally shot in the waterworks; while an unfortunate man was shot in the suburbs. A woman who sat down upon the spur of the moment was none the worse for it.

The Whole World Kin.—Many English doctors may profit by the lessons contained in a recent editorial in *The Cincinnati Lancet-Clinic*, from which these extracts are taken:—"The time was, and is not so very far back, when the ordinary general practitioner of medicine thought he was doing entire justice to himself, his profession and his clients if he took a single medical journal. Conditions and times have greatly changed within the last twenty years . . . so that the men who are ambitious to be at the front find themselves obliged to purchase new and improved instruments of precision, new books, and to take more than one or two medical journals. . . . The busiest men in the medical profession always attend the National, State and local medical societies. They are the ones who read papers, take part in the discussions, and then attend all the social functions. . . . The men who can't get off to attend such meetings are worried and perplexed for fear some rival will profit by their absence, instead of swapping time and business with such rivals, through which both would prosper and be better thought of. The world is wide, and there are other pebbles on the beach."

Medical Philology (XXXIII.).—In the *Promptorium* "Dyhtyn" is given as the equivalent of "*Paro, preparo.*" This was one of the many forms of spelling of the later and now almost obsolete "dight." Its various meanings are well illustrated in the *New English Dictionary*; that in the *Promptorium* was one that was frequent.

Mr. Way's note is: "In the Household Book of Sir John Howard, A.D. 1467, among expenses incurred for one of his retinue, is entered this item, 'My Lady paid a surgeone for dytenge of hym, whan he was hurte, 12*d.*' Palsgrave gives the verb in its more usual sense, 'to dyght, or dresse a

thynge, *habiller*. A foule woman rychly dyght, semeth fayre by candell lyght.' Ang. Sax. dihtan, *disponere*." The "dytenge" which the member of Sir John Howard's household received after his injury was probably a very small piece of minor surgery, and may have been no more than the dressing of a slight wound. In the *New English Dictionary*, which gives several instances of the use of the word to signify some surgical attention, there is this quotation, derived from that which is described as: "*Mann. & Househ. Exp.*, 1467." "My wyffe payd to a schorgon, fore dytenge of heme wane he was horte, xij.d." I am not able to give in full the authority from which this quotation is taken, but I presume it refers to the same incident which Mr. Way mentions in his *Promptorium Parvulorum* note. The spelling "schorgon" is extraordinary, and was probably never an accepted form.

Tuberculosis.—Some time ago the suggestion was made in all seriousness that the Underground Railway was a Sanatorium for chest complaints. *Truth* offered a prize for rhymed comments on this suggestion. From a collection of verses sent in on the subject I take this, which appeared over the pseudonym of "Almaviva":

Ho! all ye invalids who have a weakness of the chest,
Whose lungs are full of microbes, and whose coughing knows no rest,
We've joyful news for you indeed, a remedy is found,
'Tis close at hand, and very cheap, in fact, the "Underground."
Just travel round the "Circle," and inhale its beastly fumes,
And all the microbes take affright, and health her sway resumes.
Mayhap you live too far away, then this will meet your need:
Look out a cellar, damp and dark, and very close indeed,
Then fix a grate or brazier there, in which you then must poke
A small amount of sulphur and a good supply of coke;
A kettle you must place on top, to make the needful steam,
Then light your fire, and soon that place the Underground will seem.
If every day for several months those fumes you just inhale,
You'll be as sound as any bell, and red instead of pale;
Though some may think, when they've so much discomfort to endure,
That, after all, their old complaint is better than the cure.

The Practitioner for this month says that Dr. Walther of Nordrach owes his success in the treatment of consumption largely to the fact that he is what Jeames would call a "harbitrary gent." The following lines are by a well-known actor, who has been under his care, but whose name we are not at liberty to disclose. They give a vivid picture of the Nordrach treatment from the patient's point of view:—

"THE AUTOCRATIC DOCTOR."

[*With acknowledgments to Rudyard Kipling.*]

I.

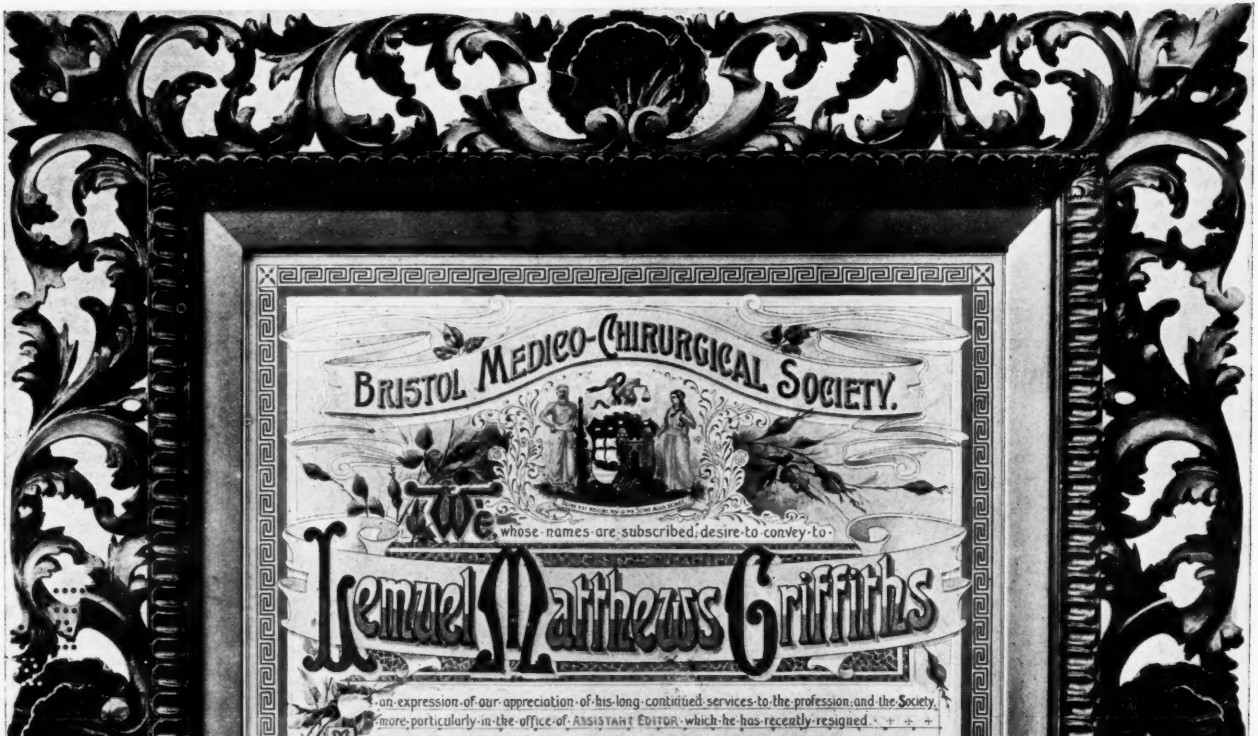
When you've swallowed Scott's Emulsion by the gallon or the jug,
When you've finished Iodinin' of your back,
Will you kindly drop your sputum in my little china mug
And send it to a party at Nordrach?
He's an autocratic doctor with a rough and ready tongue,
But Tubercular Bacilli can't abide him,
And the patient finds him busy wiping something off his lung
By cramming lots of little things inside him.

Raw meat, cooked meat, meat of a hundred kinds,
Fifty chronics at table, striving to eat their lunch,
Each of 'em doing his level best to swallow the skins and rinds.
Pass your plate for credit's sake and munch, munch, munch!

II.

There are some who "pouch" in secret, asking no permission to,
For they know they wouldn't get it if they did,
Scraps of cheese, and bits of lobster, lumps of meat they couldn't chew,
And a rather more than "gamey" piece of kid.
And havin' been so casual, they feel sorry when they're gone
(For the Autocratic Doctor's sure to "out" 'em).
When their lungs are going dicky with the winter coming on
They'll miss the bloke who understood about 'em.

Cooked food, raw food, plenty of milk and rest,
Quarter o' pound o' butter—*Schwarzbrod* by the hunch,
Each of 'em tryin' to raise his weight and widen his girth and chest.
Pass your plate for your credit's sake and munch, munch, munch!


BRISTOL MEDICO-CHIRURGICAL SOCIETY.
We whose names are subscribed, desire to convey to
Lemuel Matthews Griffiths
an expression of our appreciation of his long continued services to the profession and the Society
more particularly in the office of ASSISTANT EDITOR which he has recently resigned

an expression of our appreciation of his long continued services to the profession and the Society, more particularly in the office of ASSISTANT EDITOR which he has recently resigned.

The origin of The Bristol Medico Chirurgical Journal Seventeen years ago was chiefly due to him and the series of Annual Volumes since published are a record of his continuous and painstaking care.

The success of the Journal, and the Bristol Medical Library, have been mainly due to his organisation and nurture, and we trust that they will long continue to serve as mementoes of the untiring industry of their founder.

The sum of £135 has been subscribed and the donors ask Mr GRIFFITHS to accept this as an expression of their regard for him personally and their admiration of his work.

9th May 1900